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ORIGINAL ARTICLES.

OPERATIONS FOR PHIMOSIS AS A MEANS OF CURE OR RELIEF OF SOME NERVOUS AND OTHER SYMPTOMS.

Read before the Washington Obstetrical and Gynecological Society, June 15, 1883.

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Recent continued success in the relief of nervous and other troubles by the operation of circumcision and breaking down of the adhesions sometimes found existing between the prepuce and the glans penis, has induced me to submit the report of some cases, with a few remarks thereon. Since the date of the publication of Dr. Sayre's operations in 1870—upon reflex nervous disturbances—much has been written both *pro* and *con*. The mass of testimony derived from actual experience has been steadily accumulating to prove the value and truth of his announcement. But notwithstanding this, there are some persons who still seem either to ignore or, at least, to overlook the value of the statements that have been published.

I shall not attempt to enter deeply into the pathology of the troubles attending congenital phimosis, with or without elongation and adhesion of the prepuce, but will be content with a bare narration of facts as they have appeared to me. Research into pathological conditions can never be very satisfactory, for the want of opportunity to investigate the same, since the relief of symptoms almost always ensues upon the removal of the exciting cause, and, should death occur from other causes whilst one was suffering from these troubles, the immediate cause of death would probably mask the condition derived from preputial irritation.

This subject has interested me greatly. My experience has been derived from largely over a hundred cases. In nearly all there was either phimosis, elongated prepuce or adhesions, sometimes both. Amelioration, and more frequently perfect success, rapidly followed the removal of the abnormal conditions—occasionally no relief was obtained. The improvement, more often than not, was obtained without the assistance of any medication. In some cases tonics or sedatives were required for awhile. At times the relief given has been beyond expectation.

Case 1.—F., from the day of his birth, had to have a catheter passed night and morning to empty the bladder. All other means failed to give relief. The orifice of the prepuce was so small that it was with difficulty I could force the instrument. Upon the fifth day I circumcised the child. Relief was immediate and permanent.

Case 2.—W. L., aged 2 years, was very backward in walking. After he did commence to walk, his gait was very uncertain, and he stumbled at the slightest irregularity in the floor. Slight talipes valgus was appearing in both feet. Examination showed adhesions of prepuce extending almost to orifice of urethra. These were broken down and a large amount of smegma was removed from around the corona glandis. This accumulated rapidly, and was daily removed by the mother. Gaiffe's battery was used on the muscles of the leg twice a week for four weeks; by the end of this time the improvement was very marked. Recovery was perfect.

Case 3.—P., aged 2, had not walked; was able to stand for a brief while by the side of a chair. Locomotion was accomplished upon his buttocks by thrusting his feet first on one side and then on the other. Adhesions were broken down. Very soon the child was able to use his legs.

Case 4.—Willie G., aged 4, had suffered continually with incontinence of urine. The mother informed me that this was a nightly occurrence. Circumcision was performed. During the process of healing urine was passed involuntarily once or twice. In this case, the cicatrization caused the glans to be compressed. The trouble returned occasionally. A pair of dressing forceps inserted under the prepuce and forcibly opened broke up the adhesions and relieved the contraction. There was no return of the incontinence.

Case 5.—Francis McN., aged 11, was brought to my service at the Central Dispensary complaining of pain in the left hip joint, outer side of thigh and knee joint. These pains continued at night when in bed, and frequently were more severe at this time. There was decided atrophy of the muscles of the back and of the inside of the thigh. The left leg was much weaker than the right; frequently it would give way under him, thereby causing him to fall. The least unevenness in the roadway would cause him to stumble. He had been under the care of two physicians at different times during the preceding two years. One pronounced the patient as suffering from hip-joint disease and so treated him for awhile. I did

not hear the other diagnosis. Circumcision gave perfect relief both from the pain and the impaired locomotion. Recovery was complete. This case might readily have been mistaken for one of hip-joint disease. A number of months have now elapsed since the date of the operation, and there has been no return of the unpleasant symptoms.

Case 6.—Wm. D., aged 10, has always suffered greatly when he urinated. The father tells me that the agony is terrible and that it requires some time for him to empty the bladder. Examination disclosed an irritated prepuce. Adhesions existed almost to the orifice of urethra. Upon breaking these down marked relief was obtained, and entire relief was given as soon as the laceration of the ruptured adhesions was healed.

I have found this abnormal condition of the genitals in all my cases of hernia in children. I have only seen one case of talipes in girls. In all of those in boys, I have noticed phimosis, adherent or elongated prepuce. In November, 1881, this subject was discussed by the Neurological Society of New York. Having been requested by Dr. Seguin, through my friend Dr. Burnett, to send him a summary of my experience, I forwarded him the following account of some of my cases. This was printed in the report of the proceedings in the *Medical Record* of November 19, 1881. Through some mistake they were credited to Dr. McGuire, of Washington, instead of myself. I will here give them:

Case 1.—J. M., aged 18 months, had been troubled with incontinence of urine for several months. Prepuce much elongated. Performed circumcision January 15, 1876. No medicine was given. Perfect relief obtained. No return of trouble to this date.

Case 2.—J. W., aged 8 years. This boy had continual incontinence of urine for several years; drawers were always wet. Prepuce much elongated and adherent. Performed circumcision April 16, 1880. May 13, 1880, the dribbling during the day had almost ceased. He has passed water in bed four times at night since the operation. Small doses of strychnia were given. There was marked improvement, but not perfect success. Medication was continued. At present he is well.

Case 3—G. T., aged 10 years, April 15, 1880, complained of constant pain in popliteal space of left leg; great weakness of the legs, headache, palpitation on the least exertion. Broke down adhesions which extended to orifice of urethra; gave no medicine. June 22, 1880, perfect relief; no return of symptoms.

Case 4.—January 15, 1880, John D., aged 19 months, cannot walk, stands with difficulty, head is thrown back; is peevish, restless and bow-legged; whines continually. Ordered malt, cod-liver oil and hypophosphites. May 6, the child is stronger, but the above symptoms still persist. Examined penis. Adhesions broken down and smegma removed; medicine continued. May 20, marked improvement. Adhesions had reunited; again broke them down. August 16, child walks readily.

Case 5.—John B., aged 2 years, has great muscular debility of the lower extremities; locomotion difficult. Prepuce elongated. Circumcised June 21, 1880. On 28th much stronger, walks better. August 16, improvement continues. There is slight inclination to talipes valgus. This case has required constant care up to the present time. His condition now is very favorable.

Case 6.—July 29, 1880, W., aged 3 years, cannot walk readily. Has incontinence of urine. Broke down adhesions and removed a large amount of smegma. October 18, no return of incontinence; walks much better.

Case 7.—Charles H., aged 6 years. This child was very backward in walking; is now weak in lower extremities, has incontinence of urine and inguinal hernia. August 5, 1880, broke down adhesions and removed a quantity of smegma. August 19, marked improvement. September 6, much stronger; no return of incontinence.

Case 8.—C. R., September 23, aged 2½ years, is unable to stand; very little power in legs, muscles of thigh loose and flabby. Circumcised and broke down adhesions. Ordered malt and hypophosphites. October 31, 1881. To-day the child runs around readily.

Case 9.—Jos. W., aged 2 years, August 16, 1880, walks with great difficulty, drags his legs and is easily pushed down. Adhesions were broken down August 23. Walks without dragging his legs. September 27 circumcised him. October 4, marked improvement. The progress in this case was not so decided as in others. Gaiffe's battery was applied. This seemed to be beneficial.

Case 10.—Pierce W., aged 2 years, stumbles on coming in contact with the least elevation; walks very awkwardly. Slight talipes valgus. Circumcised and broke down adhesions. Marked improvement.

Case 11.—Wm. F., aged 2 years, is unable to stand, has laryngismus stridulus. Muscles of thighs and legs very poorly developed. The laryngismus was treated for one week without any improvement, then he was circumcised and the treatment continued. One week later he was better and could stand by a chair. Improvement was continuous and rapid.

Case 12.—Willie B., aged 1 year, is very weak throughout the whole left side. This side is not so well developed as the right. He drags the left foot when he crawls, and has had frequent convulsions. Circumcised and broke down adhesions. Three weeks later the child had much better use of his extremities. The improvement continued. Electricity was used in this case.

Case 13.—E. L., aged 11 years. Incontinence of urine. Broke down adhesions. No improvement.

Case 14.—W. E., aged 4 years. This child had a severe case of talipes equino-varus. The tendo-Achilles was cut and the foot brought into position. About four months afterward I noticed the prepuce much elongated. Circumcised and broke down adhesions. Brace was applied and electricity used. The improvement was rapid and excellent.

Case 15.—Richard G., aged 4 years. Incontinence of urine. Circumcised and broke down adhesions. Perfect relief.

Case 16.—W. B., aged 13 years. This boy had convulsive seizures almost continually, sometimes

forty or fifty in the twenty-four hours; would awake and scream out during the night. Easily excited, and would at times be almost uncontrollable. Prepuce elongated and adherent. Broke down adhesions December 15, 1880. Ordered no medicine. I saw him again January 11. 1881. He had not taken any medicine since I broke down the adhesions one month ago. The attacks during the day had recurred very rarely and the nights were very much less severe. Circumcised him October 23, 1881. The improvement has been decided and continuous. For awhile after the circumcision there was immunity from the convulsive seizures for a week or more at a time. Then they would return occasionally at night. To control this I gave bromide of potassium. Now he goes to school regularly. His teacher gives excellent reports of his behavior and progress in his studies.

Case 17.—Joseph L., aged 6 weeks. This was one of the most interesting and pronounced cases that have ever come under my observation. He had never had a good night's rest since his birth, and had to be drugged to have the least rest. He cried almost incessantly night and day. The legs were in constant motion, sometimes striking the abdomen. The penis was in a state of priapism. As soon as it was touched the convulsive movements were augmented in severity and rapidity. In each inguinal region small tumors appeared when the child cried. I circumcised him March 28, 1881. As there had been such severe muscular action, I ordered ½-grain doses of chloral every hour until quieted. During the ensuing four days he took 8 grains of chloral, then medicine was discontinued. All the nervous symptoms have disappeared. The child slept readily. Three months after the operation, the mother told me that from the second day thereafter, she had not had a particle of trouble with her boy.

Case 18.—B. P., aged 10 weeks. Had not had a good night's rest since his birth. Cried and fretted almost continually. Was in constant jactitation. The urine would accumulate under the prepuce and dribble out through a very small orifice. The head was thrown back on the spinal column. The mother said that she used to pass a handkerchief around the head and fasten the ends of it to the belly-band to keep it erect. Performed circumcision—did not order any medicine. Every symptom of irritation disappeared. Three months later there had not been the least evidence of return.

Case 19.—A. F., aged 13 years. Had shown great muscular debility in the lower extremities from birth, especially in the left leg. This leg would give way under him. He would fall on the street and around the house. He complained of dizziness and pain in the lumbar region, also had nocturnal incontinence of urine. Prepuce firmly adherent, almost to the orifice of urethra. I broke these down Jan. 19, 1880. No medicine was employed. There was no return of a single symptom except upon one occasion, there was incontinence of urine. He has continued to grow stronger, and is to-day, Oct. 15, 1881, brighter than ever before.

To better understand this subject it will be well to hurriedly consider the nervous supply and connections of this region.

The nervous supply to the genital organs is derived from the pudic nerve of the cerebro-spinal system and the pelvic plexus of the sympathetic system. The pudic nerve is a large branch of the sacral plexus and gives off in its course, the inferior hemorrhoidal nerve which supplies the external sphincter, integument around the anus and terminates in the perineal and the dorsal nerve of the penis. The perineal nerve is distributed by the cutaneous and muscular branches to the integument in front of the anus, the sphincter-ani, the scrotum and under part of the penis, the levator ani, transversus perinei, accelerator urinæ erector penis, and compressor urethræ. The dorsal nerve of the penis accompanies the dorsal artery of the penis, and is distributed to the glans, prepuce, the upper surface and sides of the organ, and sends off branches to communicate with the sympathetic.

In the female, the pudic nerve terminates in the clitoris, labia majora and perineum. The other branches of the sacral plexus are the muscular, the superior gluteal, and the great and small sciatic. These supply the integument of the perineum and the back part of the thigh and the whole of the leg, the pyriformis, obturator internus, the two gemelli, the quadratus femoris, the glutei, the tensor vaginæ femoris and the adductor magnus muscles. Branches from this plexus supply the hip joint, perforating the capsule, and also the knee joint. Connection with the sympathetic nerve is had immediately through the large cavernous nerve, which after joining with the dorsal branch of the pudic nerve passes forward to supply the corpus cavernosum and spongiosum. This larger cavernous nerve is derived from the inferior hypogastric or pelvic plexus. This plexus distributes branches to all the pelvic viscera, viz., rectum, bladder, and the vagina in the female. Filaments pass to the vas deferens, vesiculæ seminales and prostate gland in the male. The connection with the rest of the cerebro-spinal and sympathetic systems is intimate.

Reflex spasm and paralysis from diseases of the digestive canal, the ovaries, uterus and urinary organs have been frequently observed. Why cannot the same phenomena arise from genital irritations? A. McL. Hamilton, in his "Diseases of the Nervous System" assigns phimosis as one of the causes of spasm. Henoch, in his lectures on "Diseases of Children" attributes incontinence of urine to a spasm of the detrusor urinæ which acts more vigorously because the action of the will on the sphincter vesicæ is diminished during sleep. He says that the urine is always passed in a stream during sleep or in a half waking condition. Amongst various causes for this reflex irritation he mentions first congenital phimosis. The removal of this condition has cured the enuresis. The same author, in speaking of spasm of the glottis, calls attention to the fact that it occurs more frequently in boys than in girls and almost exclusively between the sixth and twenty-fourth month. I think that every case that I have seen of this trouble, except one, has occurred in boys. In all that I have examined I have found either congenital phimosis or

adherent prepuce. Removal of these brought relief. Might we not consider that there was some connection between the two conditions?

Erichsen, after stating that Bryant had shown that various affections of the genito-urinary organs of children, such as incontinence of urine, intermittent flow, hæmaturia, priapism, etc., were due to phimosis, and that Sayre had pointed out the important fact that reflex paralysis in various forms of spastic contractions, chiefly of the lower limbs are due to the same cause, being readily curable by circumcision, says: "In addition to these I have seen general spasmodic affections in children resembling chorea, resulting from congenital phimosis." He also states that he has known it to be a cause of impotence in the adult. Further on he says: "Every child who has congenital phimosis ought to be circumcised, and even those who, without having phimosis, have an abnormally long and lax prepuce would be improved greatly in cleanliness, health and morals by being subjected to the same operation; and it would be well if the custom of Eastern nations, whether it be regarded as a religious rite or only a time-honored custom were introduced amongst us."

Reflex paralysis is due, according to Romberg, Stanley, and Graves to a suspension of the sensory influence of the fibres of the sympathetic system and are motor spinal paralyses. Brown-Séquard attributes the origin to chronic irritation of the genito-urinary organs with secondary contraction of the vessels of the cord and atrophy of the corresponding parts. Levisson experimented by compressing the uterus, kidneys, intestine, or bladder of rabbits, and found reflex excitability abolished and a paralysis of the posterior limbs lasting until the irritation was removed. The paralysis was considered due to excessive irritation of the sensory fibres, thereby causing an arrest of the function of the motor-nerve centres.

Feinberg has observed in animals, after a coat of varnish, tremor, hyperæthesia, partial anæsthesia, increased reflex action, spasms and paralysis. Examination disclosed a dilatation of the cutaneous vessels, of the capillaries of the lung and the ramifications of the vena porta, hyperæmia of the meninges and a dusky redness of the cervical cord. If the animals survive a certain length of time, proliferation of the neuroglia occurs with atrophy of the nerve tubes from compression. Rosenthal, quoting these observations, says: "Thus the irritation of the cutaneous nerves produces a reflex paralysis of the centres of vascular innervation in the cord." Now, if this follows from irritation of the cutaneous nerves, can we not expect as much from irritation of the nerves about the head of the penis. The same author mentions the fact, that several cases had been referred to him by Prof. Dittel, which upon exploration of the bladder had given negative results, whilst a careful examination of motion and sensation showed a diminution of the various forms of sensibility in the legs; in the trunk there was abnormal excitability of the nerve trunks or of the genital organs. He cites a case of a girl, aged 23 years, who was relieved of a paresis of three week's standing, by the removal of a needle deeply imbedded in the vagina.

Leyden reported three cases of paraplegia following diseases of the bladder, which commenced by symptoms of motor and sensory irritation. He found diffuse softening of the cord in two cases. He thinks that a sacro-lumbar neuritis may be progagated to the cord in diseases of the bladder.

Dr. Otis has seen many nervous disturbances relieved immediately after the removal of genital irritation and believed that this was more than coincident; moreover, he was firmly convinced that reflex paralysis was possible. Dr. Hammond also admits the possibility of preputial irritation giving rise to paraplegia. Dr. Seguin has never seen reflex paralysis from irritation of the genitals of the male, but had seen reflex nervous troubles, and believed that the genital irritation should be relieved. He had met with paralysis from irritation of the deep urethra and uterine disease. Cure of the uterine disease was followed by rapid recovery from the paralytic symptoms. Dr. Campbell Black has seen hæmaturia, dysuria, incontinence, retention of urine, reflex paralysis, epilepsy, chorea, as well as spermatorrhœa, prolapsus ani, and other troubles from genital irritation. He, as well as Barwell give the priority of calling attention to these troubles to Dr. Sayre. Black attaches immense importance to genital irritation as a source of infantile paralysis and many other indications of nervous disturbance in childhood.

Barwell, ("Diseases of the Joints." Wood's Library, pp. 289 and 290) says: "A good many years ago I was struck with the fact that nearly all the boys admitted for hip disease into Charing Cross hospital had congenital phimosis. In a short time this coincidence was found to be nearly, if not quite constant. At last, in the beginning of 1873, I began to note, in a hundred male cases of hip disease occurring in my private practice or admitted into hospitals, the presence or absence of this condition; for the sake of better classification they were divided into classes:

1st Degree.	2d Degree.	3d Degree.	Elongation.	Normal.
39.	27.	17.	11.	6.

The same divided in ages—

	1st Degree.	2d Degree.	3d Degree.	Elongation.	Normal.
2 to 4,	3.	2.	0.	1.	1.
4 to 6,	7.	5.	2.	3.	3.
6 to 8,	16.	11.	9.	4.	1.
8 to 10,	13.	9.	6.	3.	1.

First degree: The opening in the prepuce, a mere pin hole, so that on retraction no part of the glans or only a minute portion of the uretheral lips could be seen. Second degree, in which all or a considerable part of, but nothing beyond the utheral orifice could be uncovered. Third degree, in which the prepuce, when retracted, uncovered some portion, but only a portion of the glans. Fourth degree, elongated prepuce, projecting more than a quarter of an inch beyond the glans, but capable of entire retraction. Fifth degree, normal. It will be observed that of these cases eighty-three have phimosis; that only six have normally formed prepuces, and that from complete or the first degree of phimosis to which class more than one-third of the cases belong, the number steadily declines to normal. I would

also point out that these are not fortuitous coincidences, because for two years at least before commencing tabulation, this association was remarked. Furthermore, I asked my friend, Mr. Morant Baker, to inquire for me about the prevalence of hip disease at the Evelina Hospital, which is largely used by Jews. He tells me that few children are there admitted for hip disease, and that most of those so received belong not to Jewish, but to the Christian community. The important fact, however, is simply, coincidence of phimosis and hip disease—a coincidence which I should never have dreamed of or imagined, had it not been forced upon my observation. Upon the mode in which the one influences the other I would rather not speculate further than to point out that phimosed children have facile, frequent and often long-continued priapism; that this condition, unnatural in the infant, must produce after a time a certain irritability or irritation of the lumbar spinal cord; that from this part the various nerves of the pelvis and lower limbs are given off; that the influence of spinal irritation on the trophic nerves is well known; and that just at this particular period large trophic changes are in progress about the hip joint." During the time that he was collecting these 100 cases in boys, he met with 74 cases among girls. In a large proportion of them he found vulvitis, vaginitis, protruding nymphæ or nymphæ covered by a cuticular surface.

Dr. Sayre noticed this same coincidence, and connected the condition with hip joint disease by the supposition that the majority of cases of this affection start from a fall or injury. The increased muscular debility from reflex irritation readily contributes to these falls.

Charcot, speaking of urinary paraplegia, says: "The very number of the cases in which we see paraplegia appear in the course of disease of the urinary passages is of itself enough to show that the phenomenon is no chance coincidence."

From the foregoing I think that we are justified in the conclusion that phimosis and adherent prepuce give rise to varied troubles of more or less gravity, manifesting themselves either in the muscular, osseous or nervous systems; and that the removal of these abnormal conditions of the penis frequently affords marked relief, and at times perfect and permanent cure.

THE IMPORTANCE FOR INSTRUCTION IN FIRST AID TO THE INJURED.

BY W. THORNTON PARKER, M.D. (MUNICH).
OF NEWPORT, R. I.
LATE A. A. SURGEON U. S. ARMY.

In 1884, while acting Post Surgeon at a lonely frontier station, I became very much interested in the work of the New York State Charities Association. I had been in correspondence with this organization for some time, before it occurred to me that some useful practical work in this direction might be accomplished in the United States military forces. I accordingly prepared the following letter, and as I have been informed that it was *probably* one of the first on the subject sent to our military medical authorities since the War, I will reproduce it here, merely to introduce the remarks I am about to make on military first aid to the injured. I have never received any reply to the letter, not even an acknowledgment of its receipt, and it was probably ignominiously pigeonholed:

TO THE MEDICAL DIRECTOR DEP'T OF THE MISSOURI:

Sir:—I beg leave to call attention to the great success of the New York State Charities Association in organizing societies in various sections of the country for the purpose of affording instruction by lectures, illustrations, etc., in "First Aid to the Injured." The efforts have met with much general encouragement from the public, and their good effects have been recognized. It has occurred to me that it might be advisable to have something of this kind attempted at our military posts, providing suitable instruction in "first aid to the injured" to both officers and men. It undoubtedly frequently happens that officers in command of small detachments, deprived of the services of a surgeon, are called upon to extend aid to the sick and wounded, and although on more than one occasion officers have been found who were not only ready, but able to offer valuable assistance, yet a careful instruction in the course suggested would enable them to more fully afford relief and save considerable suffering. At all of our larger posts, and especially at Fort Leavenworth, this course of instruction could be very easily carried out, and suitable appliances being already on hand, little if any expense would be incurred to illustrate the lectures. It is reasonable to believe that many officers and men would be interested in these lectures, and only good would result to the Army by a general distribution of the knowledge which may be able not only to alleviate suffering, but even to save life. Very respectfully, your obedient servant, W. THORNTON PARKER,
Act. Asst. Surgeon U. S. A.

Ft. Gibson, Indian Ter., June 6, 1884.

It is possible, however, that the letter was referred from one office to another until at last it attracted some official notice in the War Department, and may have indirectly resulted in the promulgation of the following order, which must prove of considerable value to the Army in the near future:

GENERAL ORDERS, No. 86. ADJUTANT-GENERAL'S OFFICE, *Washington, Nov. 20, 1886.*

The Secretary of War being of opinion that instruction by lecture or demonstration in the simpler practice of medicine and surgery may with advantage to all concerned be given by officers of the Medical Department stationed at military posts to other officers and the enlisted men serving thereat, directs that, whenever practicable and where voluntary attendance in sufficient numbers can be secured, arrangements be made for a series of such lectures on the practical treatment of the unhidden diseases, early aid to the injured, the most expeditious and proper manner of treating temporarily gunshot wounds, poisoned wounds, frostbite, bruises, dislocations, hæmorrhage, and fractures of bones; application of the tourniquet; the most approved method for resuscitation from drowning; and other kindred subjects.

Medical officers delivering these lectures will forward, not later than June 30, 1887, through the regular military channels, to this office, a report of the results, beneficial or otherwise, which may have attended them up to that date.

By command of Lieutenant-General Sheridan:

R. C. DRUM, *Adjutant-General.*

Whatever the fate of my communication to the Medical Director may have been, it is very gratifying for me to see that our military authorities are gradually awakening to what has been proven an absolute necessity in foreign armies. Probably in no other country has this matter secured the attention and won the success which has attended this humane and practical movement in England.

One of the best appliances for ready use in first aid to the injured is the Esmarch triangular bandage. This is a strip of cloth fifty inches long, triangular in shape, its greatest width being 24 inches. Upon the bandage are six pictures illustrating its use, and with the bandage is a little book describing its use. For the benefit of those who do not read French or German I have translated the directions and given the foreign address of the manufacturers, although I presume that Messrs. Geo. Tiemann & Co. can furnish the packet with English directions in any needed quantity.

Translation.

FIRST AID TO THE INJURED.

Under this title the undersigned Society offers to persons in every state and condition—in the workshops, manufactories, mines, and railroad organizations, engineering undertakings, to all travelers and emigrants, and to any thoughtful family—an emergency packet for wound dressing, which, thanks to its small, compact form, its convenient arrangement and facility of packing, will give it a place everywhere; it can be carried under all circumstances. Each one of these packets is sold for one franc (fifty centimes) postpaid, and contains: First, a compress composed of cotton charpie of Dr. Bruns, and an antiseptic bandage. These two kinds of bandage have the property of absorbing the fluids, blood and pus, and protect the wound against hurtful influences. 2. Two bands of linen, one wide, the other straight, with pins for fastening them. 3. Some "ping-hawar-yambi," as a hæmostatic application. 4. A triangular piece of linen prescribed by Dr. von Esmarch. With the aid of this apparatus the majority of bandaging operations may be accomplished without any special skill. The method is as follows: The compress, which is folded in four, unfolds in such a manner that the cotton lint will be covered entirely by the bandage (antiseptic), which gives a surface similar in form to a sheet of letter-paper. We cut off each time the requisite quantity for covering the wound. After having washed the latter, and controlled the hæmorrhage by means of the application of the ping-hawar-yambi, it is covered with a piece of the compress, which is fastened by means of the linen bandages, which, should the wound be upon the head, neck, trunk, or main parts of the extremities by the use of the triangular bandage (Esmarch's). If it be a case of an open or deep wound, you form with the compress a pad proportioned to the size of the wound, which is introduced therein after previously saturating it with good olive oil, if this be within reach. According to the abundance of the secretions from the wound, it will be necessary to change the bandage once or oftener during the day; in this case, the same bandage and the same linen can be employed—but it is important to renew the compress or the pad. As to the employment of the Esmarch's bandage, we will quote the words of Professor Esmarch, who, in his celebrated work entitled "The First Aid in Bandaging on the Field of Battle," expresses himself as follows:

"According to the part of the body wounded, the triangular bandage is used as follows: It is folded in the form of a cravat by rolling the point several times in the direction of the lower edge; the oftener it is folded the narrower the bandage becomes. Under this form a practical bandage is made, not only for wounds upon the neck, but also for those on many other portions of the body; for example, the eye, the forehead, the ears, the cheeks, the chin, and the lower jaw. It is employed in the same manner for the simple muscular wounds of the extremities, and for fixing the splints and other protective apparatus in the case of fractured bones; besides making all of it, as a sling for supporting the wounded arm. The manner of employing the bandage under this form is so simple that no particular description is necessary. The ends are well fastened by means of strong pins, or well knotted one with the other. For dressing a wound on the head, or a simple scalp wound, the bandage is placed upon the head in such a manner that the lower border will be brought directly across the forehead, the point hanging towards the neck. Then the two ends are passed backwards, behind the ears, turned again and tied in front. The point hanging in front is pulled down firmly, returned upon the head, and fastened on the top of the head with a pin (head bandage or cap).

"To bandage a wounded hand a small bandage is necessary. The hand is placed upon the opened bandage in such a manner that the wrist covers the middle of the lower edge, and the points of the fingers are directed to the pointed end of the bandage. The point is then turned backward over the hand in the direction of the forearm. The two remaining ends are crossed over the point of the bandage and tied on the other side of the wrist.

"For the foot the sole is placed on the middle of the bandage, so that the toes are directed towards the point. The point is then brought forward over the top of the foot and the two ends are passed around the malleolar processes, crossed on top of the foot and tied under the sole.

"We can also bandage the stump after amputation in the same manner. The superior border or biased edge is placed around the limb above the extremity of the stump, turned around the wound, the hanging point is brought up over the wound, and the two free ends are adjusted over these and tied.

"To comfortably sling or suspend a wounded arm the ends must be placed over the uninjured shoulder and upon the neck sufficiently in front so that it will readily pass around the neck to the other side, and it is there fastened, while the other end hangs in front of the body. We carefully place the bended arm upon the middle of the linen, advancing the point below the elbow several inches. Then the end which hangs before the arm is brought back to the side of the shoulder of the wounded arm and tied with the other end upon the back. Then the point is brought around the elbow and fastened with a pin. This bandage is called the large scarf or big sling bandage.

"For bandaging wounds upon the chest the middle of the linen is placed upon the chest, the point raised and turned backward, passing over one shoulder, and the inferior border adjusted (at the waist) in the region where the chest and abdomen unite; then bring-

ing the two ends backward and tying them together upon the back. The pointed end passed over the shoulder is then drawn down and made to pass under the knotted end, and adjusted by means of a pin or knot. For wounds on the back one proceeds in the same manner, but inversely. For wounds upon the shoulder the bandage is cut into two equal parts, of which one is folded in cravat form and is used as a little scarf for the forearm, whilst the other is placed upon the wounded shoulder in such a manner that the point shall be upon the side of the neck and the superior border upon the middle of the forearm. The ends are then passed around the under side of the arm, crossed beneath the point of the elbow, and tied together on the exterior surface of the forearm. The point of the bandage is then slipped under the scarf at the neck, plaited back upon itself and fastened with a pin at the top of the shoulder.

"In the same manner the bandage is placed upon the hip; and here we often need the entire bandage, because the upper part of the thigh is much larger than that of the arm. The inferior border of the bandage is passed around the largest part of the thigh, and the ends fastened with a double knot, but in the cases where the thigh is too large it is pinned. The point of the bandage is adjusted in the same manner as for the shoulder, by passing under the leather belt of the soldier, returned upon themselves and fastened with a pin. When there is no leather belt it will be necessary to use a second bandage folded in cravat form."

Everyone can be assured that in the manner detailed above our bandage outfit for wounds will prove satisfactory for first usage in the majority of cases of wounds. The essential thing, which is self-evident, is to have it constantly available, which is now easily accomplished, thanks to its available form. Consequently we recommend "our first aids" to all persons, as already mentioned. We recommend, also, to all large establishments, the packet containing the articles indicated as necessary to complete the outfit, which will be found invaluable when one has become accustomed to their use.

The International Manufactory of Bandaging Articles, at Schaffhausen, Switzerland. Articles to complete our bandage packet: cotton-charpie of Dr. Braus in packages three-fourth, one-half and one-eighth lb.; hydrophile bandage in packages of a yard and one-half to ten yards; triangular bandage with illustrations of wounded soldiers.

The two best works at present obtainable on this subject of ambulance corps organization are: first, "Manual for the Medical Staff Corps (British), War Office, 1885. Official Copy." This is a most valuable little work, is very suitable for our own Army, and should be reproduced here. The second is "Ambulance Handbook for Volunteers and Others," by J. A. Raye, Surgeon, and is published by Churchill, London.

These books are very important, and their completeness and admirable arrangement make them invaluable additions to the surgical library. During the War (1863), Dr. Ordronaux published a valuable little work entitled "Hints on Health in Armies." It is for sale at present by Van Nostrand, 192 Broadway, New York, and contains very valuable recommendations on military hygiene. Surgeon Woodhull's (U. S. A.) able article on "Military Hygiene," in the "Reference Handbook of the Medical Sciences," vol. iii, just published, contains the latest military medical science. I mention these writings on military hygiene because it is essential that they should be studied by all military surgeons, and because they contain valuable information for all medical men who are likely to have anything to do with military medical matters.

Three other works are in process of preparation or have been already published: Surgeon-General Langmore's work on "Transport, etc., of Sick and Wounded;" Surgeon Moore's "Manual of Drill for the Army Hospital Corps;" and Surgeon-Major Evatt's "Ambulance Organization Equipment and Transport." Another very important work in this connection, by Dr. Paul J. Möbius, Surgeon in the Saxon Army, entitled "Grundriss des Deutschen Militair-Sanitätswesens," has been translated, and will soon be published in this country, but in an abridged form.

This important subject has received comparatively little attention from the medical press, but the *Boston Medical and Surgical Journal* has done much to awaken interest in the matter, and from time to time valuable editorials and items have appeared in its columns. This has come about, no doubt, in consequence of the enterprise shown by the Surgeon-General's Office of Massachusetts, which has, without doubt, led in this matter, and has accomplished more in ambulance drill than all the organizations in the country.

The following editorial, in the *Boston Medical and Surgical Journal* of September 23, 1884, is well worth reproducing, and should strongly appeal to any officers interested in this important branch of the military service:

"It is generally understood that a militia should be a school of instruction for the men, and the public expect the development of a nucleus from which can grow, in case of necessity, an effective body of soldiers. Now, it is a well-known axiom that familiarity and experience with any work are necessary for its best accomplishment; therefore the training of an ambulance bearer corps should form part of the duty of the volunteer militia. Properly instructed and drilled, this body would form a unit from which might spring in time of need a service of the greatest importance."

Volunteer ambulance bearer corps have recently been instituted at the various military camps in England, and great success and popularity have attended the efforts of those who have had charge of this important undertaking. This has been attempted in our own country, especially in Massachusetts, but has so far been considered a failure. It must be expected that great difficulties will be encountered at first, but each trial faithfully made makes success in the end more certain. Development goes on slowly in healthy action—the militia system itself demon-

strates this fact. During the War, when one would have supposed that the plan would have secured prompt encouragement, efforts to establish an ambulance corps failed, and a bill for this purpose perished in the Senate, having received the discouraging and utterly unsound endorsement of the Committee as "*an impracticable measure at this time.*"

I quote again from the same journal: "Modern warfare has reached a stage of perfection in which results are rapidly accomplished, and this is undoubtedly due to the development of arms which can be used with rapidity and precision, the mobilization of troops, and their rapid and machine-like movements. Modern warfare has brought into use the railroads, telegraphs, massive steel cruisers, and new explosives. When we consider that with the improved Gatling and Nordenfelt ten-barrel guns a thousand shots can be fired in each minute, as was actually done in the Soudan, we see that a large number of combatants can be rapidly disabled. This increase in destructive power creates an increased necessity for means of caring for the injured. Unfortunately, however, military commanders have generally considered the care of the wounded as a minor consideration, and only in recent years has it dawned upon such officers that the certainty of good care in the event of misfortune develops in men an *ésprit de corps* second only to the accomplishment of victories. Again, the certainty of good care and attention, in case of injury, softens the anxiety of those who part with their loved ones for the national defense. This home feeling forms the foundation of the moral support on which commanders at times lean so heavily, and without which supplies of men and materials to carry on their campaigns would be wanting. The lamentable failure of men to receive proper medical care in the Crimea early drew attention to the defects of the old system of caring for the disabled. It was only when Letterman, in our Civil War, developed gradually an ambulance system (which at the close of the War was quite effective), that the necessity for sure, rapid, and effective treatment and transportation of injured combatants was properly appreciated. Many will remember the heart-rending tales of the needless suffering in transportation inflicted on our soldiers in the early part of the Civil War. Needless, because this exigency of warfare should have been foreseen and provided for.

"At Aldershot, a few weeks since, a detail of a hundred men, acting as wounded soldiers, were searched for at night, after a supposed battle, by the aid of an electric light carried by a bearer company of the army hospital corps, with all the paraphernalia of transports complete. The application of the electric light was a distinct success, the necessary dressings of the wounded being performed with accuracy and dispatch.

"An attempt was made at one of the recent annual encampments of the Massachusetts militia to instruct the men in the treatment of emergencies; owing, however, to a variety of causes the trial was a failure. This was due, in a great measure, to the amount of tactical instruction and drill required of the men. The topics considered were of general interest, but the men showed a lack of appreciation because of these conflicting duties. It was also found impossible after "retreat," the men requiring amusement at that time rather than instruction and hard work. Now, while a general knowledge of the principles of sanitary science, as taught German officers, is of importance, we feel that in time of war the rapid treatment of wounded combatants demands the training of brave and intelligent men for this important work. We hope that there will soon be an ambulance bearer corps connected with the various State militias, under the control of the Surgeon-General of the State. A company should be connected with each brigade, under the direction of the medical director, and this company should be composed of enlisted men, having the proper number of sergeants, corporals, and privates. A number of such a bearer corps should be medical students, as it is self-evident that by the discipline of such a service they would be better fitted to act after graduation as medical officers of the volunteer militia.

"Major-General George B. McClellan appreciated the necessity for an ambulance corps. In a letter dated February 21, 1863, addressed to Henry I. Bowditch, M.D., in answer to the question, 'Should the men in the ambulance corps be detailed soldiers, taken from time to time from the ranks, or should they be men enlisted for the purpose and taught their especial duties?' General McClellan answered as follows: 'There are many self-evident objections to the system of taking men temporarily from the ranks for this duty; they need instructions in their peculiar functions as well as the ordinary discipline, and should have distinctive uniforms. I am of the opinion that men should be enlisted especially for duty in the ambulance corps.' Dr. Bowditch asked also the following question: 'Do you think the establishment of such a corps would increase the the number of non-combatants?' McClellan's answer is: 'I think it would decrease the number of non-combatants, especially during battles.'"

Besides the evident value of preparing soldiers to administer intelligently first aid to the injured, some effort should be made to instruct train hands in this necessary work. "Every guard's van of every passenger train should carry a stretcher and a basket of bandages and restoratives. Every railway station should have a stretcher as part of its equipment; and every 'break-down' train sent to aid at accidents should include a regular sick transport wagon, containing dressings, restoratives and stretchers." Our recent frightful railway accidents prove this clearly.

It has been the purpose of this paper merely to act as a skirmisher in the great battle which must sooner or later take place, to decide what is useful and practical for the soldier's welfare, and what should be discarded. Prominent army officers are very apt to be conservative, and really important inventions are often put aside because they interfere with the old romantic ideas of generations past.

The object of this paper has been attained if I have emphasized the importance of "First Aid to the Injured," which in military life must develop into organized ambulance and stretcher corps.

The books I have mentioned will give more information on the subject than any others yet seen by me. The English books especially are of the greatest value, and for those medical officers of our regular and volunteer army who are about to carry out the provisions of the general order referred to will be found of remarkable assistance and practical usefulness. The subject is of national importance, and unites with the highest humanity practical economy of human lives. There should be no delay in organizing for such an important movement in the history of the U. S. Army.

Newport, R. I., February 22, 1887.

BIBLIOGRAPHY.

Hints on Health in Armies—for the use of Volunteer Officers. John Ordronaux, M.D. D. Van Nostrand, Publisher, New York.

Manual for the Medical Staff Corps, Official Copy, War Office, 1885. W. Clowes & Sons, Charing Cross.

Ambulance Handbook for Volunteers and Others. J. Anderson Raye, Surgeon L. I. Rifles. J. & A. Churchill, London.

Grundriss des Deutschen Militair Sanitatwesens. By Paul J. Möbius, Asst. Surgeon Royal Saxon Sanitäts-Corps.

Reference Handbook of the Medical Sciences. Wm. Wood & Co. Surgeon A. A. Woodhull, U. S. A., article on Military Hygiene.

Dr. Porter's Surgeon's Handbook.

REMARKS ON CATARACT EXTRACTION.

Read before the Medical Society of the District of Columbia, Feb. 23, 1887.

BY SWAN M. BURNETT, M.D.,

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Since the opening of the Garfield Memorial Hospital about two years ago, I have made twenty-five extractions of senile cataract. The number is not large, but the cases have been of such a character as will very properly serve as a basis for a few remarks on some of the mooted questions concerning this most important surgical operation.

The extraction in every case was effected through an upward incision in the cornea, made in accordance with the plan of De Wecker; that is, the upper third of the cornea was detached from the sclerotic, the incision lying wholly in the transparent tissue. Sometimes a flap of less magnitude was formed by the apex of the incision lying farther from the scleral border than the base, but this was only exceptional, and experience shows that it has no essential advantages over the incision as perfected by De Wecker and now very largely adopted by operators who have not originated some special plan of their own. In no case was the incision placed so peripherally as in the method introduced by Von Gräfe.

This incision of De Wecker seems to steer us as safely through the straits between the Scylla of corneal suppuration. and the Charybdis of iritis and cyclitis as could be reasonably hoped for. It gives an opening sufficiently large for the easy delivery of even the largest nucleus, and the lips of the wound adapt themselves as perfectly and with as little danger of gaping as in the so-called linear incision of Gräfe. This incision offers yet additional advantages over the Gräfe linear, in that it enables us to make the extraction without an iridectomy. It seems therefore, that as far as the form and position of the incision are concerned, it is hardly possible for us to go farther towards perfection.

In ten of the cases the *extraction was made without an iridectomy.* This method, practiced largely, indeed almost without exception by the French, is struggling for a foothold in this country, with however, I believe but only a moderate chance for immediate adoption. Certainly an eye with a central movable pupil is on all accounts to be preferred to one with a large coloboma in the iris, but it is equally certain that even in the hands of the most skillful this is not to be attained in all cases in operating without an iridectomy. In a rather large minority there will be prolapse of the iris. It is an operation demanding rather more skill in its performance and requiring more quiet and repose on the part of the patient for the first forty-eight hours after the operation than with an iridectomy. And yet it is an operation that I think should be cultivated, because I believe we shall in time be able to master most of its disadvantages. I attempt it in every case in which there is no marked increase in the tension of the eye-ball, and when the anterior chamber is reasonably deep. Under these conditions, with a moderately docile patient, I do not greatly fear a prolapsus of the iris. And, moreover, should the iris refuse to return after the delivery of the lens, with a moderate amount of coaxing, it is as easy to make excision of the iris after as before the exit of the lens, thus converting it into an ordinary extraction with an iridectomy. I do not find that delivery of the lens is any more difficult than with iridectomy, and I believe the danger of prolapse of the vitreous is less, since there is not so great a liability to rupture of the zonula.

The possibility, however, of prolapse of the iris after it has been once returned cannot always be guarded against, even by the use of eserine. Here eveything depends upon the accurate coöperation of the wound, and an early and persistent adhesion of its lips. A perfectly proper incision is therefore one of the first requisites for success in this method. This comes of skill and experience; but the second requisite—perfect rest of the eye for forty-eight hours—can never be counted on; for even the quietest patient, during sleep may make a sudden movement of the eye which will open the wound, when the aqueous humor will gush out, carrying with it the iris which remains thereafter fixed in the wound.

In *two cases* extraction was made *with the lens in its capsule.* In these cases an iridectomy was first made, since extraction in the capsule is much easier thus than with the iris entire. In both cases the result was perfect, and there was no escape of vitreous following the exit of the lens. In one instance it was done on account of a thickened and tough capsule; the other case was one of "black" cataract and it was desirable, for the purposes of investigation, to remove the lens in the capsule.[1]

[1] A detailed history of this case and a consideration of the subject of black cataracts and their diagnosis is to be found in a clinical lecture published in the Medical News, Jan. 29 1887.

In one instance only was a *preliminary iridectomy* made. This method, which has been brought again to the notice of the profession of late years, principally through Förster, of Breslau, has something to recommend it in a certain class of cases of which ours is typical. It was in an old man of near 80 years, the cataract was maturing slowly, the anterior chamber was very shallow, the pupil responded but feebly to light and mydriatics, and there was a chronic conjunctivitis due to an epiphora caused by a falling away of the puncta from the globe as a consequence of general laxity of the lid tissues. Such a case is not adapted for extraction without an iridectomy. I therefore made an iridectomy and rubbed the cornea against the capsule with the round corner of a strabismus hook according to Förster's recommendation. The result was a rapid maturing of the catarct which was successfully extracted three weeks later without any unusal complications. The making of such a preliminary iridectomy very much diminishes the danger of an operation in suspicious cases, since it divides the risk between the two operations, though it has happened to me to lose an eye from such a preliminary operation some years ago.

The ideal operation for cataract is without an iridectomy, and with the lens in its capsule—and some operators have confined themselves quite closely to such methods. Prof. Roosa, of New York, is at present, I believe, practicing an operation of that kind, and his statistics certainly recommend it to the further trial, but the conservative spirit of ophthalmic surgeons is very adverse to making any such radical departures from methods which give only about 6 per cent. or 7 per cent. of losses in ordinarily skillful hands. And yet I think it can be safely predicted that in the probably near future more tentative efforts will be made in that direction. In a progressive art like ophthalmic surgery no stop will be made short of as nearly absolute perfection as positive science and the greatest operative skill will allow us to attain.

In twenty-one of the cases *cocaine* applied locally *was the anæsthetic used.* The strength of the solution was 4 per cent., and no evil effects that could be referred to its employment were noted. A concurrence of testimony, however, seems to point to a possible danger from its too long employment in strong solutions. Cocaine undoubtedly has a tendency to cause a loosening of the epithelium of the cornea, thus furnishing a nidus for any pyogenic germs that may gain access. That it is, of itself, in any way deleterious I do not believe. After every instillation of the drops I cause the patient to close the eyelids, and in this manner it is believed the peculiar effect on the corneal epithelium is avoided.

In all the cases a certain amount of *antiseptic precaution* was used, but in the last eleven those of the strictest nature were adhered to. The conjunctival sac was thoroughly washed out with a solution of mercury, 1 to 25,000, made according to the formula of Panas, of Paris; the instruments were laid in absolute alcohol; the lids, brow and neighboring parts of the face were washed with a carbolic acid solution, and the dressing applied next the eye after the operation was saturated with the mercuric solution.

In the cases in which an iridectomy was not made, it was attempted to *return the prolapsed iris* by rubbing the upper lid gently over the incision, but where that was not sufficient a small Bowman's probe, dipped in the antiseptic solution was used to reposit the membrane. A solution of *eserine* was then instilled into the conjunctival sac, and in the latest cases even into the anterior chamber, thus bringing the drug in direct contact with the iris-tissue and ensuring the strongest possible contraction of the pupil. In some instances where there were remains of corticalis, the anterior chamber was even washed out with the biniodide solution. This going directly into the anterior chamber is an innovation of quite recent origin. Confidence in antisepsis has made us bold, and we now handle tissues fearlessly which before we touched only with trembling.

So far as my experience goes, this treatment of the iris and anterior chamber is not followed by any evil results, and it gives us two important factors necessary for a perfect healing—a well contracted pupil, and a clean aqueous chamber.

Within the last twelve months a great deal has been said about the "new" and "rational" *after treatment* of cataract operations—the method being claimed as "original" by several parties. The method consists in abolishing dark rooms and doing away with cumbersome bandages. For eight years I have not confined an operated case in a room in which it was too dark for the nurse to read the directions given by the surgeon. That relic of barbarism I discarded because it seemed to me both irrational and pernicious; irrational, because in only exceptional cases is light in moderation hurtful, while on the contrary, in most instances, it is of a decided advantage in keeping up the normal relation between the internal eye and its natural stimulus; pernicious, because I believe light, whether felt by the eye or not, to be as important to the well-being of man as good air, and I am myself too keenly alive to the blessed, vivifying influence of light to exclude it from persons who from age or decrepitude need all the sustaining power they can get. To enter the rooms of some ophthalmic institutions is like going into a dungeon. All these cases were treated in the open wards of a general hospital with abundant supply of light.

In regard to the matter of bandages, I do not go to the length of some in discarding them altogether, nor do I think such a course advisable. I do not use the flannel roller generally employed, for it is exceedingly hot and uncomfortable in summer, is easily disarranged, and the ordinary nurse cannot replace it when it becomes so. It seems to me also that an adhesive plaster applied over the lids would be very stiff and uncomfortable and would not afford as much protection against the accidental rubbing of the eye by the hands during sleep as the more elastic absorbent cotton. The bandage I use is a band of elastic flannel 2½ by 6½ inches, with a tape secured to each of the four corners, sufficiently long to pass around the head and come again to the front to be tied on the forehead.

After the operation is completed and the eye is disinfected, a thin linen or cotton cloth, saturated

with an antiseptic solution, is placed over the closed lid, the orbital cavity filled out to the brow with absorbent cotton and the bandage applied, and the tapes, passing above and below the ears, are brought around to the front and tied in the centre of the forehead. This bandage is easily removed and the lids can be inspected and washed—which is often very grateful to the patient—without opening the eye. The lids are always thus inspected at the end of the first twenty-four hours, or earlier, if there were symptoms demanding it, but the eye is not opened if there is no marked swelling of the lids. It takes at least forty-eight hours for the union of the lips of the wound to be firm enough to bear any considerable movement of the ball without danger of reöpening. At the end of the second day the lower lid is pulled down, and if there is no marked chemosis of the conjunctiva the bandage is replaced. At the end of the third day the corneal wound is inspected, and atropine drops applied.

The *operation* was not *complicated* in a single case, if we except a slight prolapse of vitreous in two cases, and a falling of the iris before the knife in one, necessitating the making of an iridectomy where none had been intended. The *healing* was smooth and uninterrupted in all but eight cases. In two there was reöpening of the corneal wound one week after the operation; in four severe iritis supervened; in one there was hæmorrhage into the vitreous, and in one there was suppuration of the cornea. In one of the cases the patient, a colored woman of 70 years, was seized with *mania* on the third day, and tore the bandage from her eyes and was with difficulty controlled for the next four days. Similar cases have been reported before, and it is a question as to whether it is due to the bandaging and confinement, or to the atropine which had been used. This patient had had atropine applied but once, and the mania continued though the drug was not applied again. So far as we could learn the woman had never before manifested any symptoms of this character. The corneal wound healed nicely, but a plastic iritis obstructed the pupil to such an extent as to render a secondary operation necessary. With that, however, her vision will be good.

As to *results*. There was complete primary success in twenty-one cases; in two good vision can be obtained by a secondary operation, and two eyes were lost. One of the eyes was lost by hæmorrhage into the vitreous caused by vomiting six hours after the operation. The vomiting was caused by the anæsthetic (A. C. E. mixture), it being in the præ-cocaine days. I have lost two eyes from this same cause, the other being some four years ago, and embodied in my last statistics.[2] Had I had the invaluable cocaine then, I believe those eyes could have been saved.

Of the ten cases without an iridectomy, there were only four in which there was an adhesion of the iris to the corneal wound, and in one of these, the patient—a mentally debilitated man—tore the bandage from his eyes and walked about the ward within the first twenty-four hours. When discovered by the nurse, the corneal wound was gaping wide and filled with prolapsed iris. The prolapsed portion of the iris was cut off, but inflammation of the iris set in leaving closure of the pupil as the result. With a secondary operation, however, his vision will be fair.

The loss of the eye from suppuration is of interest, as the operation was done under the most approved antiseptic method, and because the operation on the other eye, done some eight months previously but without such strict precautions, was perfectly successful, there not having been even a single unpleasant symptom after the operation. The first operation was done with an iridectomy, the last without. The operation itself was as smooth as it is possible for an operation to be. The incision was accurately placed, the lens delivered without any difficulty, and the iris returned with only a slight rubbing of the upper lid; and when the eye was closed for bandaging the pupil was central and round, and the wound was coäpted. And yet, at the end of twenty-four hours the lips of the wound were thickened and yellow, and there was a small quantity of pus on the cloth dressing next the eye. The infiltration rapidly increased, and by the next day the whole of the upper half of the cornea was involved. The bandage was removed on the first appearance of signs of suppuration, and it was vigorously combated by atropine, frequent washings of the eye with the mercuric solution, and dusting the cornea with powdered iodoform. To this prompt treatment we believe is due the arrest of the suppurative process at the end of the fifth day, though not before the upper third of the cornea had been lost. The remaining portion of the cornea is so opaque as to render any operation for restoration of vision futile.

This case is somewhat discouraging to the enthusiast for antisepsis, and advocate for the microbic theory of suppuration. I, of course, will not deny positively the absence of pyogenic microbes, but I do affirm that I used all the precautions that the most ardent antiseptist recommends; and though the majority of facts, clinical and experimental, seems to support the microbe theory, the final word yet remains to be said in regard to the cause and origin of suppuration. It seems to me that the cause cannot be altogether external. The general condition of the patient must not be excluded in settling the question of etiology. It is, I think, an important fact in this connection that this patient, on the tenth day after the operation, was attacked with facial erysipelas on the side of the operated eye, and nine days later a milder attack occurred on the other side. I will also state, as bearing on the same point, that in the thirty-four extractions recorded in my last statistics (l. c.), there were two suppurations of the cornea, both in women broken down in health and with little vitality, one having been bed-ridden for years, and the other dying in less than a week after the operation.

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[2] Comparative Frequency of Eye Diseases in the White and Colored Races in the United States. Archiv. of Oph., vol. xiii, No. 2, 1884.

THE SEASONAL RELATIONS OF CHOREA, RHEUMATISM AND NEURALGIA.

Read before the Philadelphia County Medical Society, on March 23, 1887.

BY MORRIS J. LEWIS, M.D.,

OF PHILADELPHIA.

I have been requested by your committee on meteorology and epidemics to read a paper on the influence of different conditions of weather on rheumatism and nervous affections, and take pleasure in doing so, but must state that the paper read by me before the Philadelphia Neurological Society, in October, 1886, which appeared in the *Medical News*, of November 13, 1886, embodies nearly all the facts that I have to bring before you to-night. The salient points, however, I think I can bring forward in a clearer manner than then, having changed the method of tabulation so as to make the subject more easily comprehended.

A *daily* comparison between the states of the weather and disease could not be made, as the *days of onset* of the two affections, chorea and rheumatism could not be obtained. The *months of onset* were, therefore, taken and compared with the *monthly* average of the weather, this, although rendering the result less accurate will, however, show many points of interest, the study extending over the decade 1876–1885 inclusive.

The months of onset of 437 separate attacks of chorea were taken from the books of the Orthopædic Hospital and Infirmary for Nervous Diseases during this decade; and attention is drawn to the fact that it is the time of onset of the disease that is noted and not the time of application for treatment; any conclusion drawn from the latter method of notation must necessarily be inaccurate. As it is a well-recognized fact that a relationship exists between chorea and rheumatism, which it is needless to say, is as yet imperfectly understood, I thought it would be of interest to compare with the cases of chorea the months of onset of attacks of acute and inflammatory rheumatism, and for this purpose studied the notes taken at the Pennsylvania Hospital, which were placed at my disposal; from these were collected 467 separate attacks of acute rheumatism which occurred during the years in question, all cases being excluded that were at all doubtful, together with those that did not originate in this city: this, of necessity, excludes nearly all the cases occurring among sailors.

To compare neuralgia with these two affections, I have extracted from the article by Captain Catlin, on "The Relation of Pain to Weather" (read before the College of Physicians in June, 1883, by Dr. S. Weir Mitchell), the hours of pain per month for the period of his study, of his own case, from 1875 to 1882 inclusive; but, unfortunately, Captain Catlin was situated at West Point, and the years of study do not coincide, and, therefore, for a better comparison I have prepared a table in which the first year of the neuralgia record (viz., 1875) and the last three of my records of chorea and rheumatism (viz., 1883–84–85) have been expunged, this then includes a period of seven years, 1876–82 inclusive, in which the two studies coincide, except for locality.

The weather statistics were compiled from the records kept at the Signal office in this city, and consist of a study of the temperature, range of the thermometer, barometer, relative humidity, amount of rain and snow in inches, number of cloudy and rainy days, and the number of storm centres (centres of low barometer) passing within circles of varying radii drawn around Philadelphia as a centre.

The monthly average of the weather being thus studied for ten years was then taken and compared with the monthly average of disease; but the peculiarities about to be spoken of, are best seen when a table is made which shows the mean of the ten years in question, month by month.

It must be borne in mind that while the records of the weather are complete so far as they go, the cases of disease here reported are but a small portion of those that must have occurred in this city during that decade; the neuralgia record is an exception, as it is a complete record at least of the sufferings of one person. The 437 attacks of chorea are distributed among the twelve months of the year as follows:

January,	36	attacks	= 8.2	per cent.
February,	33	"	= 7.5	"
March,	67	"	= 15.3	"
April,	38	"	= 8.6	"
May,	47	"	= 10.7	"
June,	40	"	= 9.1	"
July,	46	"	= 10.5	"
August,	34	"	= 7.7	"
September,	27	"	= 6.1	"
October,	18	"	= 4.1	"
November,	19	"	= 4.3	"
December,	32	"	= 7.3	"

The 467 attacks of rheumatism are distributed as follows:

January,	50	attacks	= 10.7	per cent.
February,	44	"	= 9.4	"
March,	45	"	= 9.5	"
April,	81	"	= 17.3	"
May,	48	"	= 10.2	"
June,	32	"	= 6.6	"
July,	28	"	= 5 9	"
August,	26	"	= 5.5	"
September,	29	"	= 6.2	"
October,	28	"	= 5.9	"
November,	24	"	= 5.1	"
December,	32	"	= 6.6	"

To compare the relative frequency of neuralgia per month with these records, I have had recourse to the unique study of the relation of pain to weather by Captain Catlin, previously mentioned.

The total amount of pain for the eight years ending January 1, 1883, was 12,994 hours, or nearly one-fifth of the time.

The winter months hold the advantage as pain producers, and for this period, while the sun was north of the equator, there were 6783 hours, against 6161 hours while it was south of the equator.

The hours of pain were distributed among the twelve months as follows:

January,	1220	hours	=	9.4 per cent.
February,	1084	"	=	8.3 "
March,	1234	"	=	9.4 "
April,	1062	"	=	8.1 "
May,	1089	"	=	8.3 "
June,	947	"	=	7.2 "
July,	997	"	=	7.6 "
August,	1060	"	=	8.2 "
September,	1006	"	=	7.7 "
October,	1038	"	=	7.9 "
November,	1104	"	=	8.4 "
December,	1153	"	=	8.8 "

In glancing over these figures, great variation in the number per month is seen; the two highest months for chorea being May and March respectively, and the two lowest being October and November; while for rheumatism, the two highest are January and April, and the two lowest November and August.

The highest month for rheumatism follows the highest month for chorea, instead of preceding it, as we might have been led to suppose from our knowledge of the relationship between these two affections, although a considerable rise is seen in the number of attacks of rheumatism in January, two months before the greatest rise in the number of chorea cases.

The greatest suffering from neuralgia occurred in March, and the least in June. An attempt to explain these variations, naturally brings us to a study of the varying conditions of the weather.

Nothing especial is seen in comparing with the chorea tracing (tabulated from the foregoing figures) that of the *mean relative humidity*, (and by this is meant, not the *mean actual amount* of moisture contained in the air, but the *mean per cent.* of the moisture that could he held in suspension at the mean temperature of each month) or that of the mean barometer, except that there appears to be an increase in the number of attacks of chorea with a fall in these two tracings; the reason for this will appear later; neither is much learned by comparing the chorea tracing with that of the mean daily range of the thermometer, which shows the variableness of the different months; this is greatest in May, and least in December. The mean temperature tracing which is highest in July and lowest in January, does not throw much light upon the subject. When, however, the tracings of the number of the cloudy days, and the days on which rain or snow fell, and the amount of rain, or melted snow in inches, are studied, a slight resemblance to the chorea tracing begins to be apparent, and the probable cause of this becomes more evident when the storm tracings are studied, because these meteorological factors may be considered as component parts of a storm. The cause of the relationship previously noted as existing between the chorea, and the mean relative humidity and mean barometer tracings, now becomes clearer, the storm centres being centres of low barometer.

In studying the storms, circles of varying radii were drawn around Philadelphia as a centre, and the number of storms, as marked on the weather bureau maps, counted in each.

The storms passing within the 400- and the 700-mile circles are the only ones I will discuss; the former because it shows the nearest resemblance to the chorea tracing, and the latter, because the average distance over which a storm can influence neuralgia has been found by Captain Catlin to be about 700 miles. A very strong resemblance exists between these two storm tracings.

The smallest number of storms passing within the 400-mile circle occurs in August; a rapid rise of the tracing then takes place, until December and January are reached, then there is a slight fall in February, immediately followed by a rise to the highest point in March, after which there is an irregular fall until the low point in August is reached. The total number of storms passing within this circle for the ten years in question, is 520, and they are distributed as follows:

January,	60	storms	=	11.5 per cent.
February,	54	"	=	10.3 "
March,	75	"	=	14 0 "
April,	46	"	=	8.8 "
May,	41	"	=	7.8 "
June,	28	"	=	5.3 "
July,	34	"	=	6.5 "
August,	19	"	=	3.6 "
September,	24	"	=	4.6 "
October,	32	"	=	6.1 "
November,	47	"	=	9.0 "
December,	60	"	=	11.5 "

Any one comparing a tracing made from these figures with that of chorea, must be struck by the resemblance between the two, which is more than accidental.

While the chorea tracing shows a strong tendency to keep pace, month by month, with the irregularities of the storm tracing, that of rheumatism, while also strongly resembling the latter in its general characteristics, may be seen to be almost exactly *one month later*, looking as if the effect of the meteorological changes was immediate in the case of chorea (as will be seen later to be the case with neuralgia), and preparatory only in the case of rheumatism. A marked resemblance exists between a tracing made from the hours of pain per month previously mentioned, and the storm tracings, even when the years of study do not coincide; when, however, a table is prepared for the years 1876–82 inclusive, during which the studies do coincide, the great resemblance becomes manifest; this is most marked with the 700 mile, and less marked with the 400-mile tracing, although still pronounced.

It would be interesting to know how many nervous disorders are thus immediately influenced by the weather, and in how many others are the meteorological changes to be looked upon as preparatory to the outbreak of the disorder. The hot weather of July has been shown to precede the month of onset of the greatest number of attacks of infantile palsy.

A similar study in the case of epilepsy, hemiplegia, and many other affections might open up much that is new.

TABLE SHOWING THE FIGURES FOR CHOREA, RHEUMATISM, NEURALGIA AND THE 400- AND 700-MILE TRACINGS FOR THE YEARS 1876-82, INCLUSIVE.

MONTH.	No. of attacks of chorea.	No. of attacks of rheumatism.	Hours of pain.	Storms passing within 400-mile circle.	Storms passing within 700-mile circle.
January	32	44	1018	44	76
February	16	27	918	38	67
March	50	34	1045	55	76
April	24	54	932	33	58
May	27	35	907	25	46
June	28	18	827	21	42
July	30	13	875	25	38
August	21	16	885	15	41
September	16	18	901	19	43
October	14	16	903	21	49
November	10	15	914	32	43
December	17	17	977	47	71
Totals	280	295	11,332	375	650

MEDICAL PROGRESS.

SALICYLIC ACID IN CHANCROID.—The use of salicylic acid in the therapeutics of soft chancre has been recommended by various authors. Dr. Giuseppe di Bella, in a report of cases treated in the clinics of Drs Monteforte and Santi-Sirena, says that this agent has acted promptly and efficaciously in a large number of cases. Hebra has seen a number of cases of chancroid cicatrize in a very few days under treatment by salicylic acid. Dr. Ping y Falco has also obtained most satisfactory results with this same agent in similar cases. DR. A. FARRIOLS ANGLADA reports in the *Gaceta Médica Catalana*, of October 15, 1886, thirty-two cases of soft chancre in which salicylic acid was used with the happiest results. This method, he says, possesses many advantages over the others hitherto used, and especially over the abortive plan. It is very simple, and the patient himself can carry it out; it is only necessary to wash the chancroid with some antiseptic fluid, and then to dust it with finely pulverized salicylic acid. In the great majority of cases, no more than two applications in the twenty-four hours are required, and in a few days (four or five, according to the author's experience) the ulcer loses entirely its specific characteristics. When this result has been obtained, that is, when the lesion has been converted into a simple ulcer, the applications of salicylic acid should be suspended, and a carbolic acid lotion or boracic acid ointment employed. Under this treatment, the ulcer becomes covered with healthy granulations, and cicatrization proceeds with great rapidity. Finally, Dr. Anglada urges, if we bear in mind that salicylic acid causes hardly any pain or inconvenience of any sort, in this way differing so greatly from the caustics ordinarily employed, we are forced to admit that it is a most valuable therapeutic agent in the management of soft chancres.—*Journ. Cutan. and Genito-Urin. Diseases.*, February, 1887.

EFFECTUAL DISINFECTION OF UTERINE TENTS.—DR. DIRNER, of Buda-Pesth, has recently written in the *Centralblatt für Gynäkologie* on the effectual disinfection of tents used for gynæcological purposes. He observes how, after the greatest precautions, serious pelvic inflammation may follow the introduction of sponge or laminaria tents. This accident is clearly due, not to the mere ulceration of the dilated structures, but to the introduction of septic material through the wounded mucous surface. The preparation of tents by soaking or coating in antiseptic media is insufficient. Septic matter may be introduced with the aseptic tent; surgeons handle and throw about samples at the shops, nor is the process of manufacture always properly superintended. Fritsch's method of coating tents with wax requires warm water to be at hand when the wax has to be melted, and that water may be septic. Dr. Dirner has detected cracks in the wax, allowing the admission of dust. The most carefully prepared dry tents can convey septic germs on their surfaces. For a year Dr. Dirner has employed in Professor Tauffer's wards a special system of disinfecting laminaria tents. He immerses them in a 1 per cent. solution of corrosive sublimate in absolute alcohol contained in a wide-mouthed bottle, When required, a tent is taken straight out of the solution and passed into the canal of the cervix, the patient being previously placed in the semiprone position, and the vagina disinfected. He takes care to inspect hollow stems before introduction, and should any crystals of sublimate be detected in the channel of a stem, it is dissolved with pure water. The results of this practice have been admirable, and he has seen no bad effects follow the introduction of the disinfected tents; provided that absolute alcohol be employed, the expansive power of the laminaria is in no way damaged.—*British Medical Journal*, March 5, 1787.

PERIOD OF INCUBATION OF HYDROPHOBIA.—BAUER, in a careful study of 510 cases of hydrophobia in man, in which the length of the period of incubation was positively and reliably known, arrived at the following conclusions:

The average duration of the period of incubation was in men eighty days, in women sixty-five days, in children fifty-seven to, in the strongest, seventy to seventy-five days.

The location of the wound influenced much the length of the period of incubation. Bites on the head or neck, or numerous teeth wounds about the body, produced an average period of fifty-five days; wounds of the lower extremities, a period of seventy-four, and of the upper, 81.5 days.

The period of incubation from wolf bites averaged thirty-nine days; from dogs, 73.5, from cats, eighty days.—*Centralblatt für klinische Medicine*, January 8, 1887.

PASTEUR states that the average period of incubation is from forty to sixty days when the bite is by a dog; and when by a wolf, thirty to sixty days, or less.—*Bullet. de l'Acad. de Méd.*, March 2 and May 4, 1886.

THE
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PUBLISHED WEEKLY.

THE EDITOR OF THIS JOURNAL would be glad to receive any items of general interest in regard to local events, or matters that it is desirable to call to the attention of the profession. Letters written for publication or containing items of information should be accompanied by the writer's full name and address, although not necessarily to be published. All communications in regard to editorial work should be addressed to the Editor.

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BACTERIA IN ICE.

At the last stated meeting of the New York Academy of Medicine, in March, DR. T. MITCHELL PRUDDEN read a paper of great interest, denoting more original research than any contribution to the Academy for some time past, on "Bacteria in Ice, and their Relations to the Ice Supply of New York City—an Experimental Study." His object in the series of investigations was to give by experimental means definiteness and precision both to the problem in general, and to the detailed questions which arise in connection with the ice supply of one particular town. His valuable studies enable us to know now with tolerable certainty just what series of questions are to be answered, and what investigations are to be made, in order to decide upon the safety of any given source of ice supply. These detailed investigations, however, as he said, can only be made under the sanction and direction of the public authorities. In the clear light which new methods of science throw upon the whole subject of ice impurities, it seems necessary that a sweeping reform, in some respects, should speedily be brought about.

Even after we have determined the number of bacteria present in water or ice, a careful consideration of other conditions is still imperative, in order to determine whether the water or ice is fit for use. The popular impression that water purifies itself in freezing is only partly true, so far as the bacteria are concerned. The partial purification from bacteria is accomplished, not by their expulsion from the water, but by the death of a certain proportion of their number, so that, if the bacterial contamination of the water be extensive, or even largely made up by the more hardy species, the ice formed from it, even though quite transparent, may still contain large numbers of the living germs. The experiments showed that bacteria of different species possess different degrees of vulnerability to the action of low temperatures. Certain species which are capable of producing serious and even fatal diseases in man—the bacillus of typhoid fever and the common bacillus of suppuration, for example—are capable of resisting a prolonged low temperature, with the destruction of only a part of the individuals thus exposed. In the case of the typhoid fever germ the exposure was for seventy-seven days. The resisting capacity of the different species was found to vary with the vitality of the individuals, the degree of temperature, and the time of exposure; while alternate freezings and thawings sufficed to entirely exterminate in a short time all species experimented on, even those which can endure for long periods a sustained low temperature. The data gathered seem to justify Dr. Prudden in the conclusion that in the freezing of natural waters there may be a precipitation amounting to as much as 90 per cent. The effect of freezing on water containing bacteria was comparable, he said, to that of filtration, but with this vital difference, that whereas by filtration all forms of bacteria are removed in approximately equal ratio, by freezing, which acts as a sort of selective filtration, some of the most dangerous forms may be retained while others are destroyed.

The ice supply of New York City is principally derived from a series of naturally excellent lakes and tanks and from the Hudson River; the latter being by far the most important source. The Hudson River ice is obtained between Troy and Poughkeepsie, and in the upper portion of this region the stream receives the entire sewage of Troy and Albany, to say nothing of that of many smaller places, and the contaminations brought from the west by the Mohawk River. Here, then, is a great tidal river rich in sewage pollution; but, while the conditions in the upper Hudson during the ice-forming season scarcely seem to be such as would favor purification from organic matter by oxidation, they do seem to be theoretically, and are shown to be practically, favorable to a considerable degree of spontaneous purification from bacteria by sedimentation.

In regard to the actual analysis of the ice brought from the Hudson, and from the lakes and ponds referred to, it was found that there is a much greater number of bacteria in the snow ice than in clear ice, or that moderately full of bubbles. The species of bacteria are much more varied and abundant in the river ice than in that from the other sources, while in

both there is a considerable proportion of the relatively harmless water bacteria. While the number of living bacteria varies greatly, not only in different parts of the same block of ice, but also in ice from different parts of the river and from different lakes and ponds, the average number is considerably greater in ice from the river than from the lakes and ponds; even when Albany ice, which is the worst of all, was excluded from the estimate. It was found, also, that the average number of bacteria in ice from all sources taken together was far beyond the general standards which even a moderate degree of purity would allow. As regards the lakes and ponds we may conclude that, although the ice from some of them contains a larger number of living bacteria than is consistent with the highest hygienic standards, the conditions can be readily changed so as to render this ice unimpeachable. With Hudson River ice, however, the case is very different; and it is a pertinent question as to what actual danger is to be feared from its use for drinking purposes. A considerable number of the bacteria which it contains are undoubtedly the relatively or absolutely harmless species, which may exist in any natural river or spring water; but a large number may, with equal certainty, be assumed to originate from animal excreta. Here, again, it is scarcely to be doubted that a considerable proportion of the bacteria existing in sewage and coming from human and other excreta, and the various putrefying fluids which form a prominent ingredient in the water of populous towns, may not be positively dangerous if taken into the body in moderate quantities.

There are some varieties of diarrhœal disturbance, severe or mild, which often seem to depend upon impure water or ice; but whether they are occasioned by sewage or other bacteria, or by organic matter, or by both, is not yet certain; and this class of cases may be left out of view. Cholera and anthrax, both bacterial diseases, transmissible by drinking-water, are not ordinarily present in the sewage of the region under consideration; and these diseases, though they cannot be ignored by those having the public health in charge, may also be left out of view. But there are many common and very important bacterial affections, almost constantly present in large towns, like Albany, and frequent enough in the smaller ones, viz.: typhoid fever and the trouble associated with acute suppuration and the so-called blood-poisoning from wounds, and pyæmia. As to the probable danger from typhoid fever to which persons using Hudson River ice are exposed, it is impossible to determine at present. The typhoid bacillus was not detected in Hudson River ice; but to do this, even though it were present in considerable numbers, in its mixture with other species and in the large dilution which exists, is a matter attended with very great practical difficulties. As is well known, it has been found in water suspected to be the cause of certain local outbreaks of typhoid; but here the conditions for its discovery in such instances are much more favorable. It is certain that this ice is not so important a factor in the transmission of the disease as to render the typhoid fever statistics worse than those of other places whose residents use cleaner ice; but, at the same time, there are many cases of typhoid fever in which the most rigid examination of the sanitary surroundings of the patients and their personal contacts entirely fails to account for the origin of the disease; and some of them may well be cases of ice-poisoning from the typhoid bacillus. With the bacteria of suppuration and pyæmia the case seems much less serious, because of the very general antiseptic treatment of wounds now in vogue; but the fact that the *staphylococcus pyogones* may be in ice in a living condition is one that should not be lost sight of.

The measures which may be adopted to guard against this not only possible, but very probable, source of danger are of two kinds: *first*, such as come under the supervision of health officers; and *second*, those belonging to the province of the consumer. In the first place, it would seem necessary that the State Board of Health, or some other authorized body, should be placed in charge of the ice-harvesting fields, and, by a system of inspection not less strict than that which should exist in the case of the ordinary water supply, determine which, if any, of the sources of ice supply are so situated as to imperil the health of ice consumers. In view of Dr. Prudden's investigations, this appears to be comparatively simple in all cases except that of the Hudson or other large rivers. Here it would be necessary to establish, by a most thorough scientific examination, the distances from all sources of sewage pollution at which it might be safely assumed that the water had sufficiently freed itself from the bacterial and other impurities to form safe ice. It might in this way be possible to remove any chance of danger by permitting the questionable or bad ice to be sold only for cooking purposes, if such a classification were practicable, and thus not materially interfere with the interests of the ice companies. A compulsory system of disinfection of excreta in infectious diseases should be instituted, as has been done in other countries in which the purity of the water supply is under constant supervision.

THE PATHOLOGY OF PUERPERAL CONVULSIONS.

In regard to our editorial article on the "Treatment of Puerperal Convulsions," in THE JOURNAL of March 12, DR. F. WALTON TODD, of Stockton, Cal., writes:

"I do dot think that a misleading expression (*me judice*) in your editorial of the March 12th number, on the "Treatment of Puerperal Convulsions" should go unchallenged. You say: 'We need not stop here to discuss the pathology of puerperal convulsions.' In that lies the success or failure of our treatment of this frightful disease. That some cases are apoplectic while others are epileptic is clearly manifest from treatment, and abundantly attested by leading obstetricians of our own and foreign countries; and he who relies upon the hypodermic injection of morphine, on chloroform, chloral, veratrum viride, or the bromides in the apoplectic form will be doomed to disappointment; and he who relies upon the lancet in the epileptic will equally fail of a happy result.

"I will give two typical cases: Mrs. Dr. P. was delivered of a child, her first, at midnight. A few minutes afterwards she became convulsed, the paroxysms returning every half hour, and continuing all night and all the next day until 8 P.M. During this time eight of the leading physicians of our city had seen her, and upon the suggestions of one and another she had taken morphia by the mouth and hypodermically, chloroform, chloral and bromides, but the convulsions were unchecked, either in frequency or violence. I saw her at 8 P.M.; she was unconscious, lips and fingernails livid, breathing stertorous, extremities cold, but the pulse full and hard. My proposition to bleed was objected to as she had already lost much blood, but the objections being overruled I opened a vein freely, and before the operation was half finished the stertor was gone, she became calm, and had no further convulsions. 2. Mrs. McL. within two weeks of her confinement at full term gave evidence of albuminuria. She had taken pulv. jalap com., digitalis, and such other remedies as seemed called for. She was safely delivered, and went into convulsions in fifteen minutes. Anticipating them she had chloroform during the latter part of labor, and as soon as they appeared I gave her a hypodermic injection of morphia and atropia, and repeated it several times, together with chloroform and the bromides, with the same results as in the former case. The first case was apoplectic, and in the opinion of every one of the medical men present would have died without the bleeding; the second was epileptiform, and would, I think, have been injured by venesection."

We must take issue with our correspondent on several points. We are aware that Dewees taught that puerperal convulsions were epileptic, apoplectic, or hysterical, and Meigs and Hodge respectively referred the convulsions to the determination of blood to the head, and to a congestion of the cerebral vessels or an actual effusion of blood or serum into the substance or cavities of the brain; but to show how these theories are regarded by "leading obstetricians of our own and foreign countries" it is sufficient to say that they are not mentioned by Barnes, Galabin, Zweifel (whose work has just appeared), or Lusk; Parvin mentions them as a part of the history of the pathology of puerperal convulsions. Indeed, when the editorial article in question was written those theories did not once occur to us. Again, admitting such pathology of the affection, a discussion of it would be futile if it "is clearly manifest from treatment." If it is not manifest before treatment is begun it is certainly of no particular value as regards treatment. A differential diagnosis based on treatment in such a case is very much like that once given between acute yellow atrophy of the liver and yellow fever: if the patient gets well it is yellow fever; if he dies it is probably acute yellow atrophy of the liver. Still again, admitting some cases as apoplectic, there is a great deal of mystery surrounding the sudden recovery after venesection. Apoplexy does occur sometimes during labor, but the symptoms are not those of puerperal convulsions, nor is the recovery similar to that seen after venesection for such convulsions. In the fourth place, our correspondent thinks that his second case would have been injured by bleeding; as nothing is said as to the state of the pulse, or of the vascular symptoms, we are justified in saying that this case may have recovered under venesection as promptly as did the first case.

What we really meant by the sentence objected to was, that a discussion of the *pathology* of puerperal convulsions would have taken us beyond the limits (as to space) of our article. To us Breus' success with hot baths in this affection is, of itself, sufficient proof that these cases are neither apoplectic nor epileptic.

WHAT IS A BANQUET?

"A banquet without wine would be a hollow mockery." Such is the apparently serious exclamation in a recent editorial in one of our valuable exchanges.

The author of it was very properly deprecating the evil influence of the example of providing wine or alcoholic drink for banquets at annual meetings of State or other Medical Societies, and yet claiming that some kind of entertainment or social reunion is desirable on such occasions.

The same mental embarrassment that troubles our editorial confrère, has troubled in times past, and is still troubling the minds of many thousands of good people, who dread the terrible dangers of the luring wine-cup in the family, in the social circle, and on the banqueting table; and yet they seem puzzled to know how to be social or hospitable without it; or more correctly speaking, they are greatly oppressed with the fear that if the *wine* is omitted, some, at least, of those they desire to entertain will regard their "banquet a hollow mockery." But is there really any truth in the assertion that, "A banquet without *wine* would be a hollow mockery?" Is it true that banqueting simply means wine drinking, or that a banquet and a debauch are necessarily synonymous? The most authoritative lexicographer, using the English language, gives no less than six definitions or uses of the word banquet. Three of them make it indicate a bench, a three-legged stool, or a bridge or sidewalk, and the other three define it to be "a feast, a rich entertainment," etc., and illustrate it by quoting lines from Dryden, Coleridge, Milton, and the following from Evelyn: "There were all the dainties, not only of the season, but of what art could add, venison, plain solid meat, fowl, baked and boiled meat, *banquet* in exceeding plenty, and exquisitely dressed." But in none of them is there a single mention of wine or any other alcoholic drink. Poor indeed would be the civilized community that could not furnish from the dainties of the season, the varieties of fish, fowl, and solid meats, etc., exquisitely dressed and decorated by art sufficient for a "banquet of exceeding plenty," without wine. And still poorer must be the human mind that cannot rise to the higher plane of social and intellectual enjoyment without the prompting of the wine-cup.

We are not now alluding either to temperance or intemperance, but to the absurdity of claiming that a *banquet* cannot be abundantly rich, varied, and luxurious, and accompanied by the most brilliant display of wit, social repartee and eloquence, without either wine or other alcoholic beverage. Some of the richest and most enjoyable banquets we have ever attended, had neither a wine-glass nor a bottle in the room. The Temperance Breakfast, spread in the banqueting room of the Royal Pavilion during the last meeting of the British Medical Association in Brighton, was one of the most enjoyable feasts of the week. At the regular Annual Banquet of the Association during the same week, every member taking his ticket for the banquet exercised full liberty to choose *wine* or *no wine* and paid the price accordingly. The richest and most enjoyable banquet ever partaken of by the members of the Illinois State Medical Society was during the last meeting in this city, only a few years since, in the spacious dining room of the Grand Pacific Hotel, without so much as a cup of either fermented or distilled drinks. The time has fully come when every man and woman who desires neither to drink wine themselves nor to furnish it to others, should exercise the right of choice with just as much freedom, as those who desire to drink, whether in the family, the social circle, around the banqueting table, or in any other relation of life.

THEISM—THE NEW NERVOUS DISEASE.

Attention has recently been drawn to a new nervous disorder said to be especially prevalent in England and America; it is called "Theism" or tea-drinker's disease. It is said to exist in three stages —the acute, subacute, and chronic. At first the symptoms are congestion of the cephalic vessels, cerebral excitement, and animation of the face. These physiological effects being constantly provoked, give rise, after a while, to reaction marked by mental and bodily depression. The tea-drinker becomes impressionable and nervous, pale, subject to cardiac troubles, and seeks relief from these symptoms in a further indulgence in the favorite beverage, which for a time restores to a sense of well-being. These symptoms characterize the first two stages. In chronic cases theism is characterized by a grave alteration of the functions of the heart, and of the vasomotors, and by a disturbance of nutrition. The patient becomes subject to hallucinations, "nightmares" and nervous trembling. With those who take plenty of exercise, an habitual consumption often may be indulged in with impunity, but with women and young people who follow sedentary occupations this is not the case. The best treatment for theism is said to be indulgence in free exercise, such as walking and open air life.

ILLINOIS BOARD OF MEDICAL EXAMINERS.—The annual meeting for examination of candidates for licenses to practice medicine, will be held by the Illinois State Board of Health, at the Grand Pacific Hotel, Chicago, on Thursday, April 21.

SOCIETY PROCEEDINGS.

MEDICAL SOCIETY OF THE DISTRICT OF COLUMBIA.

Stated Meeting, February 16, 1887.

THE PRESIDENT, JOS. TABER JOHNSON, M.D., IN THE CHAIR.

THE PRESIDENT presented

AN OVARIAN TUMOR

with the following history of the case:

Miss B., single, age 29, white, was sent to me by Dr. H. E. Leach, of South Washington, last December, on account of an enlargement in her abdomen recognized by Dr. Leach as an ovarian tumor. Upon examination I at once agreed with his diagnosis, and, although the tumor was no longer than an adult head, and gave her scarcely any trouble, I recommended its removal as soon as she could arrange for it.

I performed the operation on February 5, in a private room in the Providence Hospital, in the presence of Dr. Cutts, Bayne, Cuthbert, McArdle, Smith, Cook, and others. The tumor grew from the right ovary, was unattached except to a narrow pedicle and was removed after the evacuation of its contents through a two and one half inch incision. The tumor was multilocular. The contents of its numerous compartments differs in color, consistency and quantity. One small lobe was delivered through the abdominal opening—unbroken—and is preserved for inspection. The entire tumor weighed about six pounds. The left ovary was found to be at least four times its normal size, and cystic. In drawing it up for inspection one cyst ruptured. On this account and by its abnormal condition it, with its Fallopian tube, was unmoved also. The patient is now in her thirteenth day since the operation, perfectly comfortable, with normal pulse and temperature, and so far as I can see an unclouded prospect for perfect recovery.

A section of the unbroken cyst reveals it full of blonde hair in a sebaceous material, and the hard lump felt through the walls proves to be two rudimentary teeth.

Stated Meeting, February 23, 1887.

THE PRESIDENT IN THE CHAIR.

DR. J. FORD THOMPSON presented a specimen of

OSTEO-SARCOMA OF THE FEMUR.

The following is the history of the case: Mrs. X., aged 60, white, fell August, 1886, and fractured the right thigh about the middle. She was treated in the usual way by Dr. Sothoron. About seven weeks ago Dr. Thompson first saw her. He found non-union of the femur and stated that the only way to cure her was by an operation. After seeing her once or twice subsequently, however, he concluded that there was probably malignant disease of the bone. The woman was beginning to have pain and she was obliged to give up the use of crutches with which she had been going about. The thigh increased in size. Amputation seemed the only recourse, but upon consultation with Dr. Lincoln it was decided to delay a little longer, and the leg was put up with a slight amount of extension in order to keep it quiet. The pain, however, increased to such an extent that it was impossible to afford relief, and upon further consultation with Dr. Lincoln amputation was decided upon. Dr. Thompson stated that he fully appreciated the gravity of the operation, and while he felt himself justified in performing it, he was not by any means sure that the patient would not die on the table. This morning, (February 23,) with the assistance of Drs. Sothoron, S. W. Bogan, G. W. Johnson, Sprigg and Cutts, the operation was performed, the full consent of the patient and her friends having been obtained.

Dr. Thompson said that while he was certain that the best hope of permanent relief was in removing the leg at the hip, he had determined to make the flaps so that he might save as much of the femur as he possibly could, if he found that advisable. Having applied the Esmarch's elastic bandage from the toes to about where he expected the ends of the flaps would be, he put on an elastic ligature at this point. A second elastic ligature was applied just behind the tuberosity of the ischium, brought upwards and passed inside the crest of the ilium. He had seen this method of compression suggested, and some years ago he had used it with success in the case of a boy under similar circumstances. In this case, however, owing to the amount of fat, the large vessels in the anterior flap were not controlled, so that digital pressure had to be kept up upon the femoral artery until it could be tied. The posterior flap was kept perfectly dry. An anterior and a posterior flap were made, both by cutting from outside inwards. The femur having been reached it was sawn through just below the lesser trochanter. At the first cut of the saw it broke into fragments. Finding that the bone was diseased, the head of the femur was dissected out from the acetabulum. Owing to the great thickness of the flaps, free drainage became necessary, and with this end in view he inserted a large drainage tube into the acetabulum and a smaller one externally at the most dependent portion of the wound. The flaps were then united by four concealed catgut sutures into the mass of the muscles, several interrupted silk sutures in the usual way, and finally an uninterrupted catgut suture the whole length of the wound, thus closely and securely fixing the parts in apposition. The wound was then washed out with a warm, weak solution of carbolic acid, and the drainage tubes were found to communicate. Irrigation with hot water was kept up during the operation. The patient stood the operation very well, and when she was put to bed showed but little evidence of shock.

The dressing was of iodoform gauze followed by many thicknesses of bichloride of mercury gauze, kept in place by a spica of the groin. The thigh of the amputated leg is about twice as large as the

other. Below the knee the legs are of the same size. About the middle third of the thigh, can be plainly felt a tumor as large as an infant's head. The incision which is seen through this tumor shows it to be an encapsulated mass in appearance, and of a consistency but little harder than the brain. Several nodules, also encapsulated, project from it. The tumor appears to be nearly spherical in shape and about five and one-half inches in diameter. It has pushed forward from the femur to just under the skin, causing the muscles in contact with it almost entirely to disappear, while the other muscles have undergone fatty degeneration. At its centre the whole of the femur, except a few rough particles, has been absorbed for about four inches, while the rest of it, both above and below is practically a "sequestrum" in soft tissues, for it is completely dead. There has been an enormous increase of subcutaneous adipose tissue. The capsule strips readily from the tumor and shows no sign of ossification as might be expected if it were the periosteum.[1]

The specimen consists of the lower three-fourths of the left femur, the lower half of which, excepting the epiphysal portion has been destroyed by a spherical, lobulated, encapsuled, medullary tumor, five inches in diameter; the portion of bone remaining above the tumor as well as its medulla, is very vascular; and the muscles adjacent to the tumor, pale from fatty degeneration. The tumor probable originated in the medulla and in growing, produced the fracture mentioned in the history of the case.

The committee on Microscopy report as follows: This tumor is a spindle celled sarcoma with some giant cells. The softness of the growth is due to granular and fatty degeneration and the scarcity of connective tissue.

DR. SWAN M. BURNETT read a paper entitled

REMARKS ON CATARACT EXTRACTION.

(See page 401.)

DR. J. FORD THOMPSON said that he was a firm believer in antiseptic surgery, and he did not think that any good would accrue to that system if it had to rest upon the results obtained in ophthalmic or abdominal surgery. Dr. Burnett deserved credit for his effort to carry out antisepsis in his work on the eye, but it is probable that he can only approximately reach a perfect antiseptic dressing in that region. Distilled water might just as well be used as a weak solution of some antiseptic used merely to wash over the surface of a part. The same obtains in regard to abdominal surgery. Men who do not employ antiseptics in this field use their successes against Listerism. The peritoneum will not permit a very useful solution to be used upon it, and at any rate, that is only one branch of the wide domain of antiseptics. Lister himself says that the results obtained in abdominal surgery are not a criterion by which to judge of the value of antiseptics.

DR. BURNETT said that he was interested in the discussion of the value of antiseptics both as a pathologist and a physician, for it opens up the question of the etiology of suppuration. Is there a microbe of suppuration? If so and we can find something with which to throttle it, then we have accomplished a great end. He cannot agree with Dr. Thompson that the eye is not a good field for the use of antiseptics. We have here more or less control of the parts. We can make it a closed cavity by shutting the lids, and this is most favorable to healing without suppuration. It is also, constantly bathed by a bland if not strictly an antiseptic fluid. We cannot, however, foretell the cases in which suppuration will take place. Even the most perfect operations will be followed by this complication. He uses the biniodide of mercury 1 25,000 for which he has the highest authority. It seems that we have not reached the final cause of suppuration. Either there is some other external factor beside the microbe or we have not yet got the agent which will kill the germ.

There must be some condition of health or idiosyncrasy of the patient which makes them susceptible to this process. In all his cases in which suppuration occurred, the patients were in a low state of health. In one case a most perfect operation was done and there was every prospect of a typical union. Suppuration followed without any apparent reason. Six months previously the same patient who was in better health was operated upon with complete success.

DR. THOMPSON thought that Dr. Burnett expects too much from the use of antiseptics. The surgeons who use antiseptics have about abandoned the idea that antiseptic dressings will prevent suppuration. Union without suppuration is obtained even where no antiseptics have been used.

The microbe of suppuration is not the important element, but the microbe of putrefaction. This last we do not yet know enough about. A deep seated abscess is not accompanied by a microbe of suppuration. It is a death of cells, and nature takes this way to rid herself of effete material. The pus is either absorbed or finds an exit for itself. When the pus reaches the surface of the body the trouble begins, for then it is that the air is admitted and with it the germ of putrefaction. The object of the antiseptic dressing is to shut out this germ, to keep the wound aseptic. In the cases referred to by Dr. Burnett, the patients were in bad health, which, as he says, probably had much to do with the complication. Moreover, in the eye, suppuration is a much more serious process than in other parts, and is of itself sufficient to destroy the organ without the complication of putrescence. Suppuration in the abdominal cavity is also as harmful as it is in the eye, so from the results in these two classes of cases the value of antiseptics in general surgery cannot be obtained. Of course, it is desirable to prevent suppuration if we can, but he does not believe that this end will ever be attained.

DR. C. E. HAGNER thought that Dr. Burnett struck the keynote when he spoke of the condition or idiosyncrasy of the patient as an etiological factor of the process of suppuration. Persons with a scrofulous diathesis, and so far as his observation goes, light haired and fair skinned persons are especially liable to suppuration. Laudable pus, however, is

[1] Patient died of exhaustion on the sixteenth day after operation.

not especially harmful. This we see in cases of obstetrics. For a few days after labor there is a bloody discharge *per vaginam*. This changes into a yellowish discharge, which is in fact, pus, but harmless pus until germs of putrefaction reach it.

In reply to Dr. J. T. Sothoron as to the percentage of failures in the cases reported, Dr. Burnett replied, but two cases in the thirty-four.

The President asked if the mania developed in one of the cases might not have been due to the anæsthetic used? Mania with this for a cause has been reported in abdominal surgery.

Dr. Burnett replied that the anæsthetic used in this case was cocaine.

(*To be concluded.*)

ST. LOUIS MEDICAL SOCIETY.

Stated Meeting, March 5, 1887.

The President, S. Pollak, M.D., in the Chair.

Dr. E. H. Gregory presented

A FIBROID TUMOR,

removed a week before, including the uterus. He first saw the woman from whom it was taken about one year ago. She had then been a sufferer for three years. It was a tumor that reached nearly to the umbilicus, and he was satisfied that it involved the uterus. She lost a good deal of blood and was treated with ergot. For two months before its removal she had not lost much blood, but there was almost a constant reddish leucorrhœa, and she was very pale. She suffered very little, nor was any function especially encroached upon. She was advised to let it alone, and the advice was repeated when she came again to have it operated upon. He told her that she was within a few years of a period when certain natural changes take place in the organ in the direction of atrophy. She was 35 years of age, and, feeling that there was much danger and uncertainty, he advised her to let it alone. But he felt sure that some younger, more enterprising surgeon might advise her to have it removed, and she seemed determined to have it done. It was therefore removed last Saturday. On opening the abdomen, carrying the incision beyond the umbilicus, he easily tilted this tumor out, put a clamp opposite the internal os, was very careful to exclude the intestines and more particularly the bladder, because in these cases it sometimes reaches high up, and it was excluded with some difficulty. Tait's clamp was used. After making the clamp fast on the bladder side, he was equally careful in making it fast on the hinder portion, and the uterus was then cut off and shelled out. The woman died. The rule is that they get well, and without a bad symptom. His patient died without a good symptom. He thought it well to have this sort of a thing placed opposite the numerous recoveries. She lived until Thursday. On Tuesday it was thought she was about to get well, but there was never a reaction from the operation, and he thought that she died from shock after hysterectomy. She had a temperature of 100° on Monday, but there was no peritonitis and no hæmorrhage, and he could not say positively what she died of.

Dr. Chas. Stevens wished to know whether, as a general thing, one would expect recovery after a uterus like this was removed.

Dr. Gregory said that in the large majority of cases, one would expect recovery. He removed one a year ago, and the woman recovered—"without a bad symptom." He did not use any drainage, because there was nothing to drain.

Dr. F. Lutz said that those who had paid attention to this subject think there is a well-founded opinion concerning the natural growth of a fibroma of the uterus; and in many instances, the question is, whether the patient ought to be operated on at a certain period of life; whether the nourishment of the fibroma does not cease at the time of the climacteric period. Keith lays special stress on the fact that in many cases a tumor which heretofore has been troublesome, when the climacteric is reached ceases both to be troublesome and to grow, on account of the diminished nutrition, on account of the change going on in the genital organs. Dr. Lutz has now under observation a woman whom he has been treating for more than a year, with a fibroma of the uterus. At first the hæmorrhages which occurred seemed to be due to the fact that she was in the climacteric period, occurring every two or three weeks. He thought she had an intra mural fibroid, and the question of interference came up. He succeeded in converting the gentleman who attended with him to the opinion that possibly this fibroid would be less troublesome after the period had passed, and that the symptoms were not sufficiently urgent to demand immediate operative interference, so he put off the operation, and he believes, rightly, as for the last four months there has been but little hæmorrhage, and the tumor has given her but little trouble. The patient is 43 years of age.

Stated Meeting, March 12, 1887.

The President, S. Pollak, M.D., in the Chair.

Dr. H. H. Mudd made some remarks on

COLLES' FRACTURE.

Last fall he presented a patient who had a Colles' fracture; accompanying the fracture there was an extensive teno-synovitis with stiffening of the parts around the joint. His reasons for again bringing up this subject may be found in a portion of the report of the discussion of the meeting held June 12, 1886, as follows: Dr. Gregory had not abandoned the old pistol-shaped splint and had heard no good argument to prove that such a splint invited subsequent deformity. He thought deformity almost absolutely certain in every fracture,—sometimes, of course, so slight as not to be apparent. Bones did not unite without scarring at the side of fracture, and there is no such thing as scar tissue without departure from the original. He had never seen a Colles' fracture treated with a perfect result. The almost universal rule is deformity. The displacement of the ulna

incident to the injury is perhaps the most frequent cause of deformity. The wrist is extremely seldom left so that the skillful eye and hand cannot detect that some accident has happened to it. As to the straight splint, cut off at the metacarpal joints, Percival Pott had once said justly, that a splint that does not control neighboring articulations was a mischievous splint. Dr. Lutz, at the same time, intimated that such perfect results were not to be expected. At the meeting of October 16, Dr. Lutz presented a specimen of fracture of lower end of radius, and in speaking of the results of Colles' fracture he thought it was very seldom that results could be obtained with no deformity. When Dr. Mudd presented this subject and patient last fall, he thought we ought to get good results in this fracture; better than the text books declared we could obtain; that for a number of years he had obtained better results, a percentage of good results that approached 90. He knew very well that tissue which is regenerated, which is renewed, is never quite so perfect as original tissue, and yet he is satisfied that many of the fractures we see should be treated so that the result would be good and that deformity could not be observed. He had an opportunity of presenting the results of some cases this evening, and asked the President to appoint a committee, of which Dr. Gregory and Dr. Lutz should be members, to inspect some of the cases and determine which arms were broken. He wished to call attention also to a recent fracture that is now under treatment, not so much because it illustrates the particular method that he has employed, as it indicates the condition of the arm after it has been confined for weeks. This fracture he did not see until forty-eight hours after the injury, and the deformity was marked, and it had been dressed imperfectly. He wished simply to show the freedom of motion given to the fingers without disturbance to the end of the bones by the short palmar splint. At the time mentioned, there was some discussion on that point. He believed it was of importance that the fingers should be free at the end of the third or fourth week, and especially in older patients.

Drs. F. Lutz, W. H. Ford, and LeGrand Atwood were appointed a committee to examine Dr. Mudd's cases, and report as follows: Concerning No. 1, Drs. Lutz and Ford say the left is fractured; Dr. Atwood says the right is fractured. The left one is correct. No. 2, all these doctors say it is the right one; correct. No. 3, Dr. Atwood says it is the left, Drs. Lutz and Ford say the right; the right was broken.

DR. F. J. LUTZ said that the cases were wonderfully perfect results. An examination of this kind must be very imperfect. The first thing any one does is to make a comparison between the two wrists, the distance between the extreme lower ends of the ulna and radius. Next, one would expect to find thickening, if not displacements of the lower end of the radius. Ordinarily there is some difference between the transverse diameter of the wrists, dependent on whether the man is right or left handed. Perhaps it would be equal if he were ambidextrous. In most cases of Colles' fracture there is displacement. In one of the cases, No. 3, there is thickening at the ulnar side of the radius, if not displacement of the lower fragment. In No. 2, in which he guessed right, the lower portion of the radius is thickened. In No. 1, the difference between the radius and ulna of the left arm he thought was markedly greater than that of the right one. They were better results than we have a right to expect, but he added that the fourth case will be the usual result of a Colles' fracture. The exhibition of the cases proved this, that in three cases a better result than is ordinarly gotten was obtained. In the fourth, the usual result was obtained.

DR. A. GREEN said he had treated three or four cases a month from the Turner gymnasium with the pistol-shaped splint, and that so far as the appearance and use of the arms of fourteen cases he had were concerned, the results were perfect. The fifteenth case was that of a boy who was always running about; a few days after injury, on opening dressing and trying to get passive motion, he found that the fracture was united but not hardened, but the radius was leaning too much towards the ulna. He was afraid that supination would be lost, but introduced between the bones a pad, and a perfect result is the consequence.

DR. GREGORY agreed with Dr. Lutz exactly, and supposed that everybody who knew him would say that he has held that position for many years; for he has been telling people for many years to "let it alone." In reply to Dr. Dudley, if he ever knew a tumor of that size to be recovered from after operation? Dr. Gregory said he had seen cases recover of a tumor that size. He determined that if he could not remove the tumor, he could remove the ovaries. If he had another case, and could look into the woman and see just what was seen after it was exposed, he should advise an operation, because he is satisfied that that tumor would have grown worse.

DR. LE GRAND ATWOOD was surprised and delighted with the result of these three cases. He always used the pistol-shaped splint, and to his sorrow. He was careful to remove it to make passive motion, but invariably with bad results. An outline of his future plan of treatment is, that he will not use the pistol-shaped splint, and will make the patient use the fingers from day to day to prevent the anchylosis which is made with the pistol-shaped splint.

DR. LUTZ did not consider Dr. Mudd's cases deformed in the sense that he considered the ordinary result obtained from a Colles' fracture deformities.

DR. MUDD said that no one will contend that we can have repair to a broken bone without some thickening after the injury. He believed there was no deformity in the three cases, nor that there will be deformity in the other case, notwithstanding the difficulties. He had asked, to-day, Dr. Moore to go and see an old gentleman 67 years of age, whom he treated, who suffered from Colles' fracture in January, 1873, and so perfect was the result that the man, as also his wife, was unable to tell which arm was broken. He did not advocate any special method of treatment. There are methods, the plaster, the dorsal or palmar splint, etc., with which we will get

good results. The dorsal is not as comfortable as the palmar splint. The plaster will make a very perfect dressing if the swelling is not great. He feels safer when he has a splint which he can remove to see if there is any irritation or swelling of the tissues. Patients differ in their complaints of pain. If we watch the amount of irritation expressed by the tissues, by the infiltration, we can very readily change the points of pressure, and remove very often the conditions which develop irritation. He thinks that if there is any splint which is a source of irritation to the patient, it is the pistol-shaped splint, and the Dupuytren splint in Pott's fracture. They are dangerous splints. If there is much swelling and infiltration around the tendons and ligaments, when the ankle is turned inward in Pott's fracture, we put it in an uncomfortable and dangerous position by using the Dupuytren splint, because it increases the amount of engorgement and deposit about the bones. Prof. Dennis, of New York, had developed a point in fractures about ankle joints that had been impressed upon his mind for ten years—first by a patient, Dr. Gregory—the fact that the irritation about such a fracture is diminished very much if the muscles are put at rest. He put them at rest by making an excision. He had seen Pott's fracture, where there was simply turning out of the bone, treated by putting it back with the muscles on a stretch, and the result was a long-continued inflammation. Dennis says divide the tendons when the muscles are excited to action by the irritation about the joint. A Colles' fracture is not put at rest on a pistol-shaped splint, but the ligaments are put upon the stretch. The fingers should rest on the splint until the third or fourth week. Then they can be released without disturbance, and in that way mobility can be maintained. In addition to the straight palmar splint padded at the hand, he puts a pad above the end of the radius; it does not press on the sharp end of the radius, but is above. He never uses a second or dorsal splint, one being sufficient.

Dr. D. V. Dean used the straight palmar splint, or the plaster or other molded splint, usually not the plaster until after a few days, when the swelling has subsided. If one holds his hand voluntarily, or by dressings, in the position of the pistol splint, it will soon be tiresome and painful. He has never had a case under his care conducted through to the end with a pistol splint, because he has been better satisfied with other methods. In using the plaster or molded splint, he always slits it after the third or fourth day, so as to see the position. He rarely allows the palmar splint to extend further than the base of the first row of the phalanges, at least after the first week or so.

Dr. A. H. Meissenbach said the case he had treated by Dr. Mudd's method had given the best results. He had a case which occurred this week; the patient came to the office when he was busy, and having a pistol-shaped splint at hand he put it on, temporarily; the man complained of pain that night. He changed the splint the next day, and after that the arm felt perfectly comfortable. It was natural, because the idea of the pistol splint is to extend and bring into line over-riding fragments, and in order to do this there must be a great amount of pressure. He has adopted a little different plan. A greater amount of freedom can be allowed without detriment to the part, not abridging the motion even at first. He thinks it can be done, because a certain amount of motion is not detrimental to the healing of fractures, for instance in position, and also in fractures of the humerus, and in some of the thigh. He thought Dr. Mudd made a very good point in stating that special attention should be given to this point in cases over 40 years of age, because he knew of several cases that had at first temporary anchylosis, and at last permanent anchylosis of the part.

Dr. W. H. Ford said Dr. Mudd's results in cases are in the highest degree satisfactory; so much so that he would not be inclined to consider either of the wrists as deformed at present. They are almost normal, and in the course of time will become more so. They are decidedly better than those it has been his lot to see in the limited results he has had. He has used the straight palmar and dorsal in all his cases. He found the other method to produce so much discomfort that he removed it and substituted the other splint. He obtained good results, but as all the cases were hard working people, they were not absolutely perfect. But it stands to reason that if we quiet the parts with a palmar and dorsal splint and leave the motion of the fingers with good supination, we will get pretty good results. He thinks the action of the supinator longus, and to some extent of the square pronator, is preventive of good results. The remark of Dr. Mudd concerning the muscular action in Pott's fracture, he thought correct. He had seen very great distortion after that treatment. In 1867 he advocated the plan of tenotomy for the the three perinei and possibly for the tibialis anticus; but he had never done it. He supposed the plan would be applicable only where there is a great deal of muscular action. It must be done early or not at all, before the œdema sets in. But of late years he has fallen on a different plan, which has been very satisfactory. If the fracture is not compound, he generally places the foot back in position. He takes a broad band of adhesive rubber plaster, 1¾ inch wide, and long enough to go from foot to knee. One point of it is applied to the dorsum of the foot, carried outwards, brought around against the sole, then up, drawing down the tissues, fastening it to the skin, turning in the remainder and securing it. He places it, besides, in a splint, and if necessary elevates it. The results have been so good that it is almost impossible to know that anything had ever happened to the foot, and there is no tendency for the foot to splay out. So that may possibly supplant the measure of tenotomy in cases where there is no spasm of the muscles, which is more apt to occur in compound fractures.

Dr. H. C. Fairbrother asked Dr. Mudd how early after the dressing he removes it, and at how late a period he removes it finally in the average age of patients.

Dr. Mudd said that if the fragments are well adjusted there is not much tendency to displacement.

He inspects such fractures on the fourth day after the injury; the worse the case the earlier he inspects. He removes these splints in the fourth or sixth week. The age does not govern very materially.

GYNÆCOLOGICAL SOCIETY OF BOSTON.

Stated Meeting, December 19, 1886.

THE PRESIDENT, H. O. MARCY, M.D., IN THE CHAIR.

H. J. HARRIMAN, M.D., SECRETARY.

DR. E. C. KELLER exhibited an

OVARIAN CYST,

removed by her at the New England Hospital for Women, with the following history: Patient 32 years old; widow. Tumor of two years' growth. Had been tapped some months since, and again about three weeks prior to the operation. Had always had much pain and had not been able to lie down since February, 1886; heart displaced and pulse 120; weight before operation 126 pounds. At the operation the tumor was found bound down by adhesions to the omentum, stomach and intestines. The adhesions were not recent. The opening into the cyst resulting from the last tapping had not closed, and the ovarian fluid had leaked into the peritoneal cavity. The tumor was multilocular, and one of the sacs contained a very dark fluid, almost black. Bleeding from small vessels torn while breaking down the adhesions was so troublesome that twenty ligatures were applied, and as they did not check the hæmorrhage, two gallons of water at a temperature of 118° F. were poured into the abdominal cavity. Even this was not entirely successful, and Monsell's solution, diluted one-half with water, was used to touch the bleeding surfaces. The pedicle was tied with the shoemaker's stitch as recommended by Dr. Marcy. A glass drainage tube was left in the wound, and on the day following the operation one half ounce of black fluid was washed out of the pelvic cavity. Stitches were removed on the eleventh day, and on the day when the case was reported the patient was doing well.

DR. E. W. CUSHING read a paper on

THE USE OF IRRIGATION IN GYNÆCOLOGY.

In 1845 Semmelweiss propounded the theory and proved the fact that, as a rule, puerperal fever is simply an infection of the genital tract at the hand of the physician or midwife. Since then the genius of Pasteur and the labors of Lister have made clear the nature of the infection, and the teachings of Semmelweiss have been generally accepted. Now it is proposed to broaden the application of this principle of infection and to show that pelvic inflammations of other than puerperal origin are due to septic infection. "Catching cold," with subsequent inflammation in the pelvis following gynecological operation or manipulation, means either that septic material has been introduced into the lymphatics from the surface laid bare by operation, thus producing a cellulitis, or that the endometrium has been infected, and that the infection has spread up the tubes and set up a peritonitis. The immediate cause of such inflammation is an infection with living bacteria or germs; the more or less favorable nature of the soil into which they fall determining whether the symptoms will be slight, with moderate fever and local hardness, or a violent explosion of peritonitis or septicæmia resulting in death.

In some cases collections of bacteria may lie dormant for long periods in the tubes or in circumscribed abscesses, ready to start into activity when released. Self-infection from such sources explains many mysterious cases of puerperal fever and cellulitis. It should be remembered that the vagina is a veritable hot-bed for the development of bacteria, and that an old gleet in the husband may have set up a mild gonorrhœa in the wife, so that gonococci or other germs abound, ready to be carried into the uterus on a sound, or to infect any wound which a surgeon may make.

The writer expressed the opinion that endometritis, erosion, ectropion, etc., may be due to bacterial irritation.

In view of the fact that these septic processes cannot be controlled by treatment after they have been thoroughly inaugurated, it is the duty of the physician, first, to prevent such troubles by killing off the bacteria in the vagina and uterus; and second, to avoid operations or harsh manipulations when he has reason to believe that the tubes contain pus.

For the first purpose there is nothing so sure, speedy and convenient as bichloride of mercury. In hospitals it ought to be a part of every vaginal examination or operation to douche the vagina well with 1:1000 or 1:2000 sublimate solution, and to carry some of an even stronger solution or strong carbolic acid into the uterus on a probe. When the cavity of the wound is to be invaded by operation it should be thoroughly washed out with a disinfecting solution. In cystitis, after operation, a sublimate solution of 1:5000 should be run through the bladder, washing it out thoroughly and repeatedly, and be followed by an iodoform emulsion.

Before, during and after all operations upon the cervix, and between packings of the vagina for hæmorrhage, the vagina should be irrigated. For long operations, or where much raw surface is exposed, the solution should be 1:5000 and should be hot. In hospitals it is comparatively easy to introduce the systematic use of irrigation, but in office practice the surgeon is tempted to neglect it. In office practice a good swabbing of the vagina with sublimate solution on cotton may answer the purpose, or one of the springes may be used which irrigate the vagina without spilling the fluid externally. A sublimate solution in water does not keep well, and must be prepared every day. By using the sublimate lozenges prepared by Grosvenor & Richards, each of which contains 7⅓ grains, a quart of solution can be quickly made by using one lozenge. For hospital use a solution of sublimate in glycerine is convenient. If 1 drachm of a solution containing ℥ij of sublimate to ℥i of glycerine be added to two quarts of water, a solution 1:2000 will be gained.

Dr. W. Symington Brown said that his principal objection to corrosive sublimate was its poisonous character, which renders it a dangerous agent in the hands of inexperienced or careless physicians. Cases of poisoning from the use of the sublimate douche have been reported, and a 1:4000 solution is the only safe one. Iodoform is also a source of danger, as it contains 90 per cent. of iodine. Antiseptic irrigation in all cases is a fallacy, and cleanliness from plain water is equally efficient. The three essentials of Listerism are absolute cleanliness, rest and drainage—germicides are not necessary.

Dr. H. L. Betts said that she used the antiseptic douche as much to protect herself from infection during examinations, etc., as to protect the patient.

Dr. E. C. Keller is partial to antiseptics, and uses sublimate, iodoform and carbolic acid freely in both surgery and obstetrics. The effect of the mercury upon instruments is bad, and to avoid this she uses a sublimate solution for irrigation and a carbolized solution in operations. Dr. Keller has always used iodoform freely and has never seen any bad effect. She does not use the douche after a normal labor unless the lochia are foul.

Dr. H. C. White regarded the use of antiseptic irrigation as essential in hospitals, but as unnecessary in private practice. In applying such measures a distinction should be made between physiological and pathological processes, and antiseptics which may be of value in morbid conditions are not essential when the process is normal, as in parturition.

Dr. Cushing, in closing the discussion, said that he had not intended to open the whole question of antiseptics in his paper, but only to present one method in which they can be profitably used. He regarded the use of antiseptic precautions as necessary for the general practitioner as for the hospital surgeon, on account of the variety of infections to which the former is exposed. He also thought that the dangers arising from absorption of the sublimate solution had been overestimated, and that no trouble would arise if ordinary precautions were used.

PHILADELPHIA COUNTY MEDICAL SOCIETY.

Stated Meeting, March 23, 1887.

The Vice-President, W. W. Keen, M.D., in the Chair.

Dr. Morris J. Lewis read a paper on

THE SEASONAL RELATIONS OF CHOREA, RHEUMATISM, AND NEURALGIA.

(See page 404.)

Dr. W. Osler said: This is a very important and valuable (as well as seasonable) contribution to the interesting and obscure question of the relations of chorea and rheumatism. As Dr. Lewis remarked, it is not a little curious that, in his tables, rheumatism has followed chorea, while the common experience is that chorea follows rheumatism. It is the more usual sequence for a child who already has rheumatism to develop chorea, though they frequently come on so closely that it is sometimes difficult to say which came first.

I would ask Dr. Lewis whether or not his statistics in this matter gave any clew as to the relationship of these two diseases? In what way chorea is related to rheumatism, or in what way the rheumatism to the chorea? The recent statistics of the Committee of the Collective Investigation of Disease in Great Britain, show that some 32 per cent. of all the cases of chorea (430 in number) were associated with rheumatism. These affections have, in common, extreme liability of endocardial complications. It is not improbable that all cases of chorea have endocarditis. So far as the morbid anatomy goes, I do not know of an instance in which the mitral valve did not present vegetations. In the three instances that I have examined, this has not been the case. In the cases occurring at Guy's Hospital over a number of years the same has been true. So far as my reading goes, the experience of German observers confirms this view. It might be interesting to ask whether the blustering, stormy weather of the past two months has brought out an unusual number of cases of chorea. It has not brought them to my clinics.

Dr. W. B. Atkinson said: I have had within the last four weeks, at my clinic, three severe cases of chorea. During the month of January I did not see a single case. I cannot say that I have ever seen a case in which an attack of chorea antedated rheumatism, but I have seen many cases in which rheumatism has been followed by chorea.

Dr. Lewis said: I am unable to explain the relation between chorea and rheumatism. With reference to the statistics, I will state that those of chorea were obtained from the Orthopædic Hospital, the patients, as a rule, being children, while those of rheumatism were from the Pennsylvania Hospital, and the patients mainly adults.

Dr. Osler mentions that he has not seen an increased number of cases of chorea at recent clinics. I think that he will find that many cases that have occurred will arrive or be heard from later, It is not the month of application that I have taken, but the month of onset.

DOMESTIC CORRESPONDENCE

TRANSFUSION OF BLOOD.

Dear Sir:—Your synopsis of Dr. Hunter's paper, on transfusion, published in The Journal of March 5, is very interesting, and presents some new ideas on this almost obsolete operation. If I interpret them correctly the conclusions Dr. Hunter arrives at are in brief, as follows:

In a transfusion upon man of 6 ounces of blood, the excess of corpuscles would, under normal circumstances, be got rid of in a period of from one to two days.

2. That the condition of the blood as regards the number of corpuscles, does not in itself, in cases of anæmia constitute the disease, but is mainly a result.

3. Transfusion can only act by modifying the nutrition of the body, and this it can do only: 1. By the corpuscles continuing to live for a certain time within the circulation and performing their functions. 2. By the introduction of oxygen and the increased supply of oxygen brought to the tissues while the corpuscles remain in the blood; or, 3. By the introduction of the hæmoglobin contained in the blood.

As to the first possible benefit, Dr. Hunter concludes that the corpuscles transfused into an organism whose own corpuscles were being destroyed with undue rapidity, would themselves be rapidly destroyed and of not the slightest value. This reasoning also disposes of the second supposed benefit; and as to the third, "only a small proportion of the hæmoglobin so introduced can be utilized for purposes of blood formation, etc."

Now, allow me to say, that Dr. Hunter's theory is based entirely on suppositions and premises which are in dispute and doubtful of demonstration. The life of the blood corpuscle in sickness and in health; the cause of pernicious prognosive anæmia; the disposition which the organism makes of the hæmoglobin after the corpuscle is destroyed; the office of the liver in blood destruction, etc. All these functions are difficult and unsettled. But one thing is certain: "In many cases of anæmia the first important requirement is to make blood." (S. Weir Mitchell in his work "Fat and Blood.")

All cases of anæmia are not alike; some are beyond the reach of science. After transfusion, in some cases there is hæmaturia owing to the rapid destruction of the excess of blood corpuscles, in many cases there is no hæmaturia. In some cases there is no perceptible benefit, in many cases transfusion has resulted in a cure. Facts are better than theories, and displace and dispel them. Professor Immerman, in Vol. 18, of the "Cyclopædia of the Practice of Medicine," gives a table of 243 cases; 114 complete recoveries, thirty-four temporary benefit, ninety-five no benefit. Roussel reports that from 1820 to 1875 transfusion saved life in at least eighty cases of confinement, in thirty cases of wounds in war or of surgical wounds, in fifty cases of diseases of the blood or *anæmic* consumption, and twenty cases of typhus, chorea, etc. Professor Brunton, of Philadelphia, says: "It is not the number of *failures* but the number of *successes* in transfusion which surprise us, when we consider the desperate circumstances for which the operation has been reserved." (*Medical Record*, 1878. p. 20).

I am in receipt of a letter from Dr. Frank W. Epley, of New Richmond, Wis., in which he says: "I have transfused four times for anæmia, twice with brilliant success, and once it was a total failure, owing to some internal ulcer in the pelvic region, which I diagnosed malignant. The fourth operation was in a case of phthisis. The only benefit I could see was a cessation of the sweating which had previously baffled all our efforts. After the transfusion there was never a particle of sweating. . . I am convinced that anæmia may always be benefited, and many cases cured by transfusion." In one case Dr. Epley sent a specimen of the patient's blood before transfusion and three days afterwards to Professor Danforth for microscopical examination. In the first specimen Professor Danforth reported the corpuscles shriveled and serated; in the second case he reported a marked improvement. This tends to show that if the excess of corpuscles are disposed of it is not necessarily those transfused. Rokitansky's opinion was based on the fact, that the corpuscles of the defibrinated blood were not destroyed by the process, but would live when transplanted.

It is now known that in addition to the red blood corpuscle which, with the white, Rokitansky supposed to be all there were, there are, in the adult, about 500,000 blood placques per ccm. which are entirely destroyed by the process of extracting the fibrin, and of which Rokitansky knew nothing. These are, according to the weight of reasoning (if not the weight of authority) elementary corpuscles, and a very important and useful element of the blood.

I do not wish to be understood as claiming that transfusion is a specific in any class of cases. Doubtless there are a multitude of anæmic diseases in which patients have inherited a predisposition to consumption in some form, for whom there is no cure; but there are other cases which may be called accidental. They began with a cold, or are the result of ignorant disregard of the laws of health, or follow other diseases, such as typhus or diphtheria or surgical wounds, or pyæmia. In these cases I believe direct transfusion to be the best known curative agent. It is in the direct line of modern medication, tonics, fresh air, sunlight, cleanliness, etc., for it is a tonic, it is air, it is sunlight. "The blood is the natural and healthful stimulant of the heart." "Oxygen is the most important nutritive element." (Prof. Henry, "Lecture on Anæmia," August *Polyclinic.*)

I believe transfusion to-day occupies the insecure place which it has for two reasons: *First*, it is a difficult operation to perform.

"No safe and simple instrument has yet been devised with which the operation can be safely performed." (Immermann.)

Second; The medical profession have, for years insisted that defibrinated blood is fully as good as the unchanged blood (and some say better) for transfusion. So the operation has been almost wholly confined to that class, but my own experiments have been sufficient to satisfy me that blood exposed to the air and which has been subjected to the process of whipping, although not worthless, "will never," as Roussel says, "give those satisfactory results which follow a direct transfusion."

Respectfully yours, E. E. ALLEN, M.D.
Grand Rapids, Mich., March 15, 1887.

ASSOCIATION ITEMS.

AMERICAN MEDICAL ASSOCIATION.

The Thirty-eighth Annual Session will be held in Chicago, Ill., on Tuesday, Wednesday, Thursday and Friday, June 7, 8, 9 and 10, commencing on Tuesday, at 11 A.M.

"The delegates shall receive their appointment from permanently organized State Medical Societies, and such County and District Medical Societies *as are recognized by representation in their respective State Societies*, and from the Medical Department of the Army and Navy, and the Marine Hospital Service of the United States.

"Each State, County, and District Medical Society entitled to representation shall have the privilege of sending to the Association one delegate for every ten of its regular resident members, and one for every additional fraction of more than half that number: *Provided*, however, that the number of delegates for any particular State, territory, county, city or town shall not exceed the ratio of one in ten of the resident physicians who may have signed the Code of Ethics of the Association."

Secretaries of Medical Societies, as above designated, are earnestly requested to forward, *at once*, lists of their delegates.

Also, that the Permanent Secretary may be enabled to erase from the roll the names of those who have forfeited their membership, the Secretaries *are, by special resolution*, requested to send to him, annually, a corrected list of the membership of their respective Societies.

SECTIONS.

"The Chairmen of the several Sections shall prepare and read, in the general sessions of the Association, papers on the advances and discoveries of the past year in the branches of science included in their respective Sections. . . " *By-Laws*, Art. II, Sec. 4.

Practice of Medicine, Materia Medica and Physiology.—Dr. J. S. Lynch, Baltimore, Md., Chairman; Dr. J. B. Marvin, Louisville, Ky., Secretary.

Obstetrics and Diseases of Women and Children.—Dr. F. M. Johnson, Kansas City, Mo., Chairman; Dr. W. W. Jaggard, Chicago, Ill., Secretary.

Surgery and Anatomy.—Dr. H. H. Mudd, St. Louis, Mo., Chairman; Dr. A. M. Pollock, Pittsburg, Pa., Secretary.

State Medicine.—Dr. George H. Rohé, Baltimore, Md., Chairman; Dr. Walter Wyman, U. S. M. Hospital, New York, Secretary.

Ophthalmology, Otology and Laryngology.—Dr. X. C. Scott, Cleveland, O., Chairman; Dr. J. H. Thompson, Kansas City, Mo., Secretary.

Diseases of Children.—Dr. DeLaskie Miller, Chicago, Ill., Chairman; Dr. W. B. Lawrence, Batesville, Ark., Secretary.

Oral and Dental Surgery.—Dr. John S. Marshall, Chicago, Ill., Chairman; Dr. E. S. Talbot, Chicago, Ill., Secretary.

Medical Jurisprudence.—Dr. I. N. Quimby, Jersey City, N. J., Chairman; Dr. H. H. Kimball, Minneapolis, Minn., Secretary.

A member desiring to read a paper before a Section should forward the paper, or its *title* and *length* (not exceeding twenty minutes in reading), to the Chairman of the Committee of Arrangements at least one month before the meeting.—*By-Laws.*

Committee of Arrangements.—Dr. Charles Gilman Smith, Chicago, Ill., Chairman.

Amendment to By-Laws.—Create a new Section, to be known as the Section on Dermatology and Venereal Diseases. WM. B. ATKINSON, M.D.,
Permanent Secretary.

Philadelphia, 1400 Pine St., S. W. cor. Broad.

MISCELLANEOUS.

DR. JOHN W. RUSSELL.—At a called meeting of the Knox County Medical Society, held March 23, 1887, the following preamble and resolutions were adopted:

WHEREAS, It has pleased Almighty God to remove from among us Dr. John W. Russell, it seems fitting for us who have been favored with the acquaintance and instruction of one whose intellectual attainments have commanded the highest admiration, whose name will stand among the foremost of his profession and whose memory will be cherished by all who had the honor to be his students and associates, to in some manner express our deep sorrow. Therefore, be it

Resolved, That this society and the medical profession have sustained the loss of a most active, earnest, and useful member.

Resolved, That the community in which he lived has thus been deprived of a Christian gentleman, and society of one of its truest and noblest safeguards—an active and learned physician, skillful and beloved, who devoted the best efforts of a well-balanced mind to the alleviation of suffering humanity.

Resolved, That we extend to the bereaved family our sincere sympathy in their affliction.

Resolved, That the medical fraternity attend the funeral in a body.

Resolved, That a copy of these resolutions be presented to the family, to each of the county papers, and to the *Medical and Surgical Reporter*, *Medical Record*, and JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION. (Signed)

F. C. LARIMORE, M.D.,
P. PICKARD, M.D.,
R. W. COLVILLE, M.D.,
Committee.

FRENCH SURGICAL CONGRESS.—The next meeting of the French Surgical Congress, the third since the foundation, will be held in Paris, in April, 1888, under the Presidency of Professor Verneuil; the precise date will be subsequently announced. The following questions are proposed for debate at the Congress: 1. On the treatment of gunshot wounds of the visceral cavities. 2. On the value of the radical treatment of hernia as a permanent cure. 3. Chronic suppuration of the pleura, and its operative treatment. 4. Recurrence of tumors after operation (causes and prevention).

The object of the French Surgical Congress is to establish scientific relations amongst surgeons and practioners of France and foreign countries. All qualified men become members of the Congress on duly entering their names and on payment of the snbscription of 20 francs. Members of the Congress

who desire to make a communication to the meeting are requested to communicate their intention to the Secretary-General three months before the opening of the Congress. A summary of the conclusions of their paper must also be forwarded. All communications should be addressed to Dr. S. Pozzi, Secretaire-Général, Congrés de Chirurgie Française, 10 Place Vendome, Paris.

BIRTH AND DEATH-RATE IN ENGLAND AND WALES.—The report of the Registrar General for 1885, just issued, shows that the births of the year were 32.5 to the 1,000 persons living; the lowest number recorded since 1848. With the exception of an insignificant rise in 1884, the rate has fallen continuously year by year since 1876. The male births were 455,809, the female 438,461. It is satisfactory to learn that the long-continued fall in the marriage rate has led, for 1885 at least, to no increase in the number of illegitimate births. On the contrary, the decline under this latter heading has beaten the record in the most encouraging way. The deaths of the year lag behind the births in a way that precludes all anxiety for the immediate future of the race. They were in proportion of 19.0 to the 1,000—with one solitary exception, the lowest yet recorded. Among the deaths were 63 of reputed centenarians, 19 of whom were males and 44 females. The death-rate in the urban population was 20.0 per 1,000, and the lowest on record, while that of the rural population was 17.5, a slight increase.

DR. R. E. CARRINGTON, one of the most promising physicians on the junior staff of Guy's Hospital, has just died of pleuro-pneumonia, after a two days' illness.

A LOYAL DENTIST.—A dentist in a small provincial town in England, will celebrate Her Majesty's Jubilee by extracting teeth and supplying false ones free of charge on the morning of the celebration.

SURGICAL LABORATORIES.—The surgeons of the London Hospitals have signed a memorial asking the Royal College of Surgeons of England to build a suitable laboratory for the study of morbid anatomy, including histology, experimental pathology, including bacteriology, and of experimental operative surgery. They say that in view of the power and wealth of the college any Fellow or Member who is competent to carry out scientific investigations should be able to do so without inconvenience or expense.

OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT, U. S. ARMY, FROM MARCH 26, 1887, TO APRIL 1, 1887.

Capt. Harry O. Perley, Asst. Surgeon, ordered for temporary duty at Ft. Maginnis, M. T. S. O. 23, Dept. Dak., March 18, 1887.

OFFICIAL LIST OF CHANGES IN THE MEDICAL CORPS OF THE U. S. NAVY, DURING THE WEEK ENDING APRIL 2, 1887.

Waggener, J. R., P. A. Surgeon, commissioned a Surgeon on March 18.

Fitts, H. B., P. A. Surgeon, ordered to the receiving ship "Vermont."

Tracy, E. C., Asst. Surgeon, detached from the "Vermont" and ordered to the "Atlanta."

Heffinger, A. C., P. A. Surgeon, detached from the "Atlanta" and ordered on special duty in connection with construction of hospital at Widows Island, Me.

OFFICIAL LIST OF CHANGES OF STATIONS AND DUTIES OF MEDICAL OFFICERS OF THE U. S. MARINE HOSPITAL SERVICE FOR THE WEEK ENDED APRIL 2, 1887.

Urquhart, F. M., P. A. Surgeon, to assume charge of Cape Charles Quarantine. March 29, 1887.

Norman, Seaton, Asst. Surgeon, to report for duty at Cape Charles Quarantine. April 2, 1887.

NOTES AND QUERIES.

ARMY SURGEONS ON SICK LEAVE.

Dear Sir:—Referring to "Inquirer's" question in THE JOURNAL of March 19, it would seem that he has found a prototype of the famous "Pooh Bah," in a physician who is:—1st, an Assistant Surgeon U. S. Army; 2d, a local practitioner of medicine; 3d, a holder of a State appointment; 4th, a proprietor of a drug store, as the inquirer states, "all at the same time."

Now, it would seem that a solution is very easy. If an Assistant Surgeon is on sick leave, undoubtedly his only official duty is to get well; and presumably the Medical Department of the Army is the judge of this matter, though undoubtedly "Inquirer" might take the Surgeon-General into his confidence if he thinks the officer is not recovering quickly enough, or his recovery is hampered by the duties of offices 2, 3, and 4. If he is not attending to his duty under the second heading, it might be inferred he would have no patients, *ergo*, nothing to practice on. If he is not fulfilling the requisites of the third office, presumably the State Governor or legislature is open to complaint. And, fourthly, if the drug store is a poor one, it will be a victim to inanition. So, therefore, it seems that the question answers itself, and an Assistant Surgeon U. S. A. can do all of these things.

By section 94, Rev. Reg. U. S. A., 1881, "Whenever an officer has been absent on account of sickness for one year, he may be examined by a Medical Board, and the case specially reported to the President." As the retired list is limited to 400, he may have to wait an opportunity therefor.

Section 106 of the Regulations states: "Retired officers may engage in private business or hold civil offices not contrary to law."

Very respectfully,

S. T. ARMSTRONG.

Memphis, Tenn., March 22, 1887.

PRIVATE REGISTRATION AT THE CONGRESS.

Dear Sir:—In view of the large number of gentlemen who will undoubtedly attend the International Congress, and who will hope and expect to meet old friends, classmates, etc., would it not be possible for the Committee of Arrangements to request each State Secretary to provide and forward a large register—plainly printed on the cover the name of the State—that every attendant might register his name, residence and stopping place. To the large majority it will be a pleasure trip; they will rely on published transactions for the work of the Congress. The finding of friends is to many one of the chief pleasures; yet we cannot hope to "meet by chance" all those we want to see most. A line of registers, for separate, States will in many ways facilitate the work, and accommodate individuals immensely. If it is thought advisable I will submit my plan in detail to the committee.

HIPPOLAPIUS.

Terre Haute, Ind., March 20, 1887.

CORRIGENDA.

In the discussion on the Cæsarean operation, JOURNAL of March 19, p. 325, 1st column, 17th line from bottom, for Heyner read *Keyser*.

In the issue of April 2, p. 388, 2d col., line 27, for about 25 per cent., read *one-half of 1 per cent.*